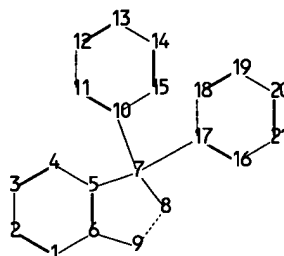
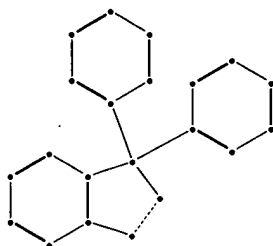


L Number	Hits	Search Text	DB	Time stamp
1	3216	((549/430) or (549/453) or (549/550) or (558/388) or (560/56) or (560/57) or (560/221) or (564/180) or (564/265)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/03/04 17:24
2	2555	((514/467) or (514/475) or (514/544) or (514/546) or (514/640) or (514/617) or (514/717)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/03/04 17:24
3	5613	((549/430) or (549/453) or (549/550) or (558/388) or (560/56) or (560/57) or (560/221) or (564/180) or (564/265)).CCLS.) or (((514/467) or (514/475) or (514/544) or (514/546) or (514/640) or (514/617) or (514/717)).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/03/04 17:24



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

chain bonds :

7-10 7-17

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 10-11 10-15 11-12 12-13 13-14 14-15
16-17 16-21 17-18 18-19 19-20 20-21

exact/norm bonds :

5-7 6-9 7-8 8-9

exact bonds :

7-10 7-17

normalized bonds :

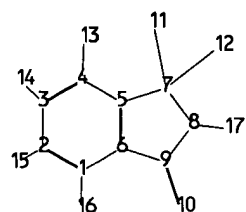
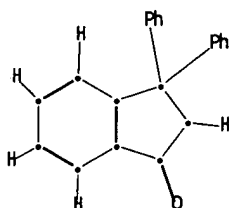
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15 16-17 16-21 17-18
18-19 19-20 20-21

isolated ring systems :

containing 10 : 16 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom



chain nodes :

10 11 12 13 14 15 16 17

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

1-16 2-15 3-14 4-13 7-11 7-12 8-17 9-10

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds :

5-7 6-9 7-8 8-9 9-10

exact bonds :

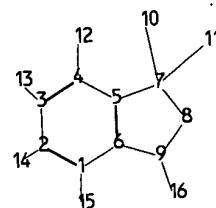
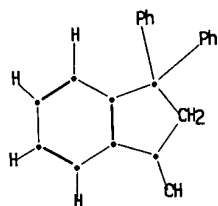
1-16 2-15 3-14 4-13 7-11 7-12 8-17

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

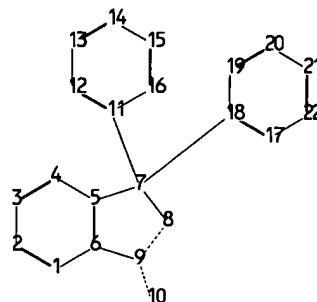
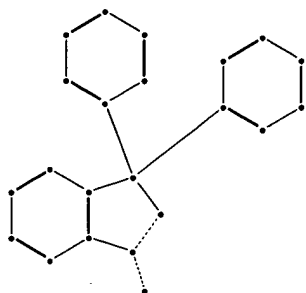
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS



chain nodes :
 10 11 12 13 14 15 16
 ring nodes :
 1 2 3 4 5 6 7 8 9
 chain bonds :
 1-15 2-14 3-13 4-12 7-10 7-11 9-16
 ring bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
 exact/norm bonds :
 5-7 6-9 7-8 8-9 9-16
 exact bonds :
 1-15 2-14 3-13 4-12 7-10 7-11
 normalized bonds :
 1-2 1-6 2-3 3-4 4-5 5-6

Match level :
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS
 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS



ring nodes :

1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20 21 22

ring/chain nodes :

10

chain bonds :

7-11 7-18 9-10

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15 15-16
17-18 17-22 18-19 19-20 20-21 21-22

exact/norm bonds :

5-7 6-9 7-8 8-9 9-10

exact bonds :

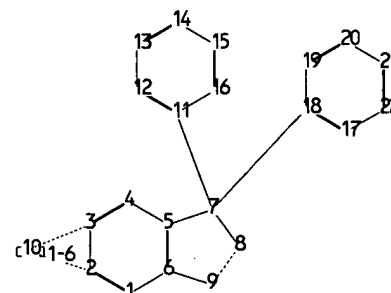
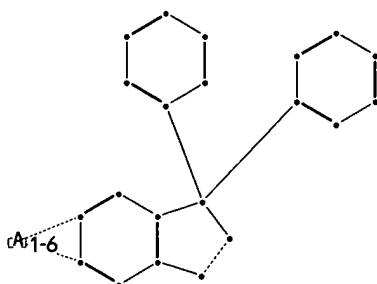
7-11 7-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16 17-18 17-22 18-19
19-20 20-21 21-22

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:Atom



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

7-11 7-18

ring bonds :

1-2 1-6 2-3 2-10 3-4 3-10 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14
14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22

exact/norm bonds :

2-10 3-10 5-7 6-9 7-8 8-9

exact bonds :

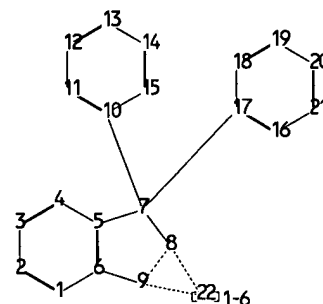
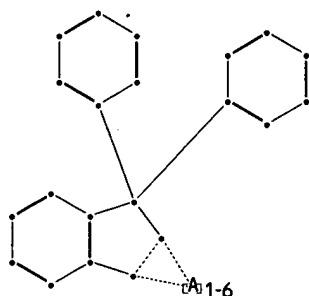
7-11 7-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16 17-18 17-22 18-19
19-20 20-21 21-22

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:Atom



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

7-10 7-17

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 8-22 9-22 10-11 10-15 11-12 12-13
13-14 14-15 16-17 16-21 17-18 18-19 19-20 20-21

exact/norm bonds :

5-7 6-9 7-8 8-9 8-22 9-22

exact bonds :

7-10 7-17

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15 16-17 16-21 17-18
18-19 19-20 20-21

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:Atom

=>

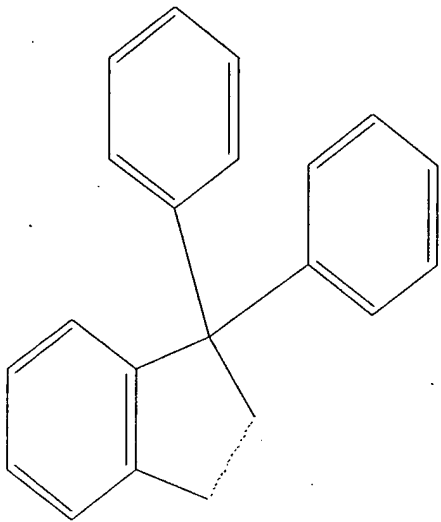
Uploading 10043640.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 07:54:27 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 852 TO ITERATE

100.0% PROCESSED 852 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 15289 TO 18791

PROJECTED ANSWERS: 3045 TO 4715

L2 50 SEA SSS SAM L1

=> s l1 sss ful

FULL SEARCH INITIATED 07:55:23 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 17035 TO ITERATE

100.0% PROCESSED 17035 ITERATIONS

4161 ANSWERS

SEARCH TIME: 00.00.01

L3 4161 SEA SSS FUL L1

=>

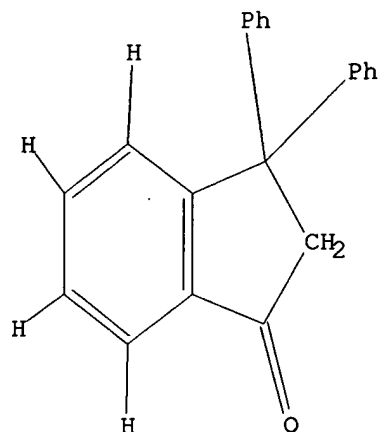
Uploading 10043640 (sub1).str

L4 STRUCTURE UPLOADED

=> d 14

L4 HAS NO ANSWERS

L4 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 14 sub=l3 sss sam

SAMPLE SUBSET SEARCH INITIATED 07:56:15 FILE 'REGISTRY'

SAMPLE SUBSET SCREEN SEARCH COMPLETED - 9 TO ITERATE

100.0% PROCESSED 9 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET):

ONLINE **COMPLETE**

PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):

9 TO 360

PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):

0 TO 0

L5 0 SEA SUB=L3 SSS SAM L4

=>

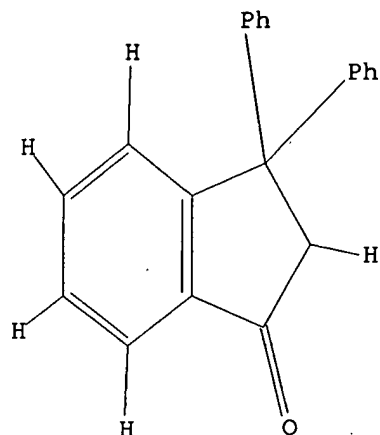
Uploading 10043640 (sub1).str

L6 STRUCTURE UPLOADED

=> d 16

L6 HAS NO ANSWERS

L6 STR



Structure attributes must be viewed using STN Express query preparation.

```
=> s l6 sub=l3 sss sam
SAMPLE SUBSET SEARCH INITIATED 08:17:30 FILE 'REGISTRY'
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 9 TO ITERATE

100.0% PROCESSED          9 ITERATIONS                      1 ANSWERS
SEARCH TIME: 00.00.01
```

```
PROJECTIONS (WITHIN SPECIFIED SUBSET):          ONLINE  **COMPLETE**
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):          9 TO      360
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):          1 TO      80
```

```
L7          1 SEA SUB=L3 SSS SAM L6
```

```
=> s l4 sub=l3 sss ful
FULL SUBSET SEARCH INITIATED 08:18:47 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED - 249 TO ITERATE
```

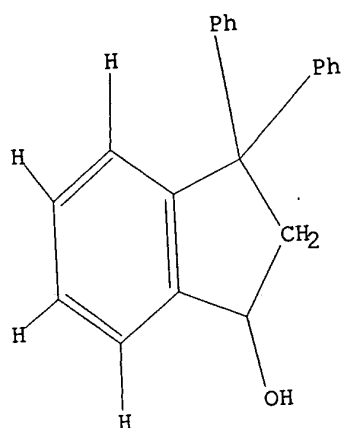
```
100.0% PROCESSED        249 ITERATIONS                      2 ANSWERS
SEARCH TIME: 00.00.01
```

```
L8          2 SEA SUB=L3 SSS FUL L4
```

```
=>
Uploading 10043640 (sub2).str
```

```
L9          STRUCTURE UPLOADED
```

```
=> d l9
L9 HAS NO ANSWERS
L9          STR
```



Structure attributes must be viewed using STN Express query preparation.

=> s 19 sub=l3 sss sam
 SAMPLE SUBSET SEARCH INITIATED 08:19:31 FILE 'REGISTRY'
 SAMPLE SUBSET SCREEN SEARCH COMPLETED - 9 TO ITERATE

0 ANSWERS

100.0% PROCESSED 9 ITERATIONS
 SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET):
 PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):
 PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):

ONLINE **COMPLETE**
 9 TO 360
 0 TO 0

L10 0 SEA SUB=L3 SSS SAM L9

=> s 19 sub=l3 sss ful
 FULL SUBSET SEARCH INITIATED 08:19:47 FILE 'REGISTRY'
 FULL SUBSET SCREEN SEARCH COMPLETED - 249 TO ITERATE

3 ANSWERS

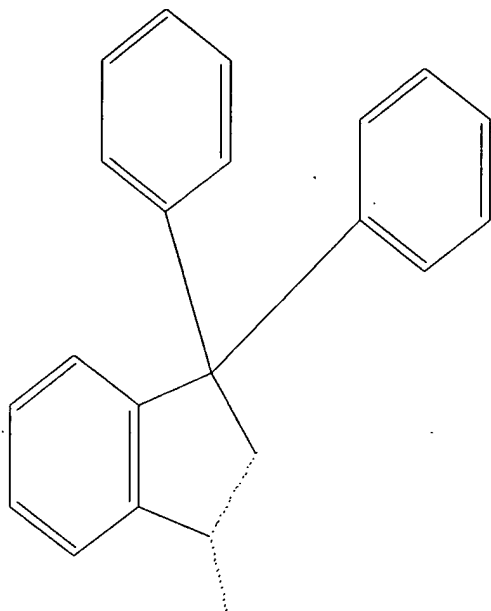
100.0% PROCESSED 249 ITERATIONS
 SEARCH TIME: 00.00.01

L11 3 SEA SUB=L3 SSS FUL L9

=>
 Uploading 10043640 (sub3).str

L12 STRUCTURE UPLOADED

=> d l12
 L12 HAS NO ANSWERS
 L12 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l12 sub=l3 sss sam

SAMPLE SUBSET SEARCH INITIATED 08:20:23 FILE 'REGISTRY'

SAMPLE SUBSET SCREEN SEARCH COMPLETED - 15 TO ITERATE

100.0% PROCESSED 15 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET):

ONLINE **COMPLETE**

PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):

68 TO 532

PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):

2 TO 124

L13 2 SEA SUB=L3 SSS SAM L12

=> s l12 sub=l3 sss ful

FULL SUBSET SEARCH INITIATED 08:20:44 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 419 TO ITERATE

100.0% PROCESSED 419 ITERATIONS

99 ANSWERS

SEARCH TIME: 00.00.01

L14 99 SEA SUB=L3 SSS FUL L12

=>

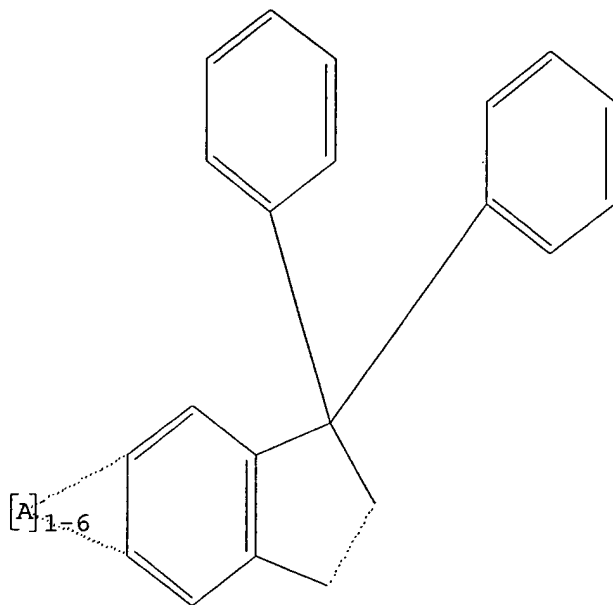
Uploading 10043640 (sub4).str

L15 STRUCTURE UPLOADED

=> d l15

L15 HAS NO ANSWERS

L15 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l15 sub=l3 sss sam

SAMPLE SUBSET SEARCH INITIATED 08:22:58 FILE 'REGISTRY'
 SAMPLE SUBSET SCREEN SEARCH COMPLETED - 194 TO ITERATE

100.0% PROCESSED 194 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET):	ONLINE	**COMPLETE**	
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):	3045 TO	4715	
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):	0 TO	0	

L16 0 SEA SUB=L3 SSS SAM L15

=> s l15 sub=l3 sss ful

FULL SUBSET SEARCH INITIATED 08:23:07 FILE 'REGISTRY'
 FULL SUBSET SCREEN SEARCH COMPLETED - 4157 TO ITERATE

100.0% PROCESSED 4157 ITERATIONS 1 ANSWERS
 SEARCH TIME: 00.00.01

L17 1 SEA SUB=L3 SSS FUL L15

=> d his

(FILE 'HOME' ENTERED AT 07:53:39 ON 03 MAR 2003)

FILE 'REGISTRY' ENTERED AT 07:53:44 ON 03 MAR 2003

L1 STRUCTURE UPLOADED

L2 50 S L1 SSS SAM

L3 4161 S L1 SSS FUL

L4 STRUCTURE UPLOADED
L5 0 S L4 SSS SAM SUB=L3

FILE 'STNGUIDE' ENTERED AT 07:57:16 ON 03 MAR 2003

FILE 'REGISTRY' ENTERED AT 08:17:03 ON 03 MAR 2003

L6 STRUCTURE UPLOADED
L7 1 S L6 SSS SAM SUB=L3
L8 2 S L4 SSS FUL SUB=L3
L9 STRUCTURE UPLOADED
L10 0 S L9 SSS SAM SUB=L3
L11 3 S L9 SSS FUL SUB=L3
L12 STRUCTURE UPLOADED
L13 2 S L12 SSS SAM SUB=L3
L14 99 S L12 SSS FUL SUB=L3
L15 STRUCTURE UPLOADED
L16 0 S L15 SSS SAM SUB=L3
L17 1 S L15 SSS FUL SUB=L3

=> s l8 or l11 or l14 or l17
L18 105 L8 OR L11 OR L14 OR L17

=> s l3 not l18
L19 4056 L3 NOT L18

=> s l19
L20 2320 L19

=> s prolifer?
L21 170156 PROLIFER?

=> s l20 and l21
L22 3 L20 AND L21

=> d l22 1-3 bib,ab,hitstr

10/043,640

=> d his

(FILE 'HOME' ENTERED AT 07:53:39 ON 03 MAR 2003)

FILE 'REGISTRY' ENTERED AT 07:53:44 ON 03 MAR 2003
STRUCTURE UPLOADED

L1 50 S L1 SSS SAM
L2 4161 S L1 SSS FUL
L3 STRUCTURE UPLOADED
L4 0 S L4 SSS SAM SUB=L3
L5

FILE 'STNGUIDE' ENTERED AT 07:57:16 ON 03 MAR 2003

FILE 'REGISTRY' ENTERED AT 08:17:03 ON 03 MAR 2003
STRUCTURE UPLOADED

L6 1 S L6 SSS SAM SUB=L3
L7 2 S L4 SSS FUL SUB=L3
L8 STRUCTURE UPLOADED
L9 0 S L9 SSS SAM SUB=L3
L10 3 S L9 SSS FUL SUB=L3
L11 STRUCTURE UPLOADED
L12 2 S L12 SSS SAM SUB=L3
L13 99 S L12 SSS FUL SUB=L3
L14 STRUCTURE UPLOADED
L15 0 S L15 SSS SAM SUB=L3
L16 1 S L15 SSS FUL SUB=L3
L17 105 S L8 OR L11 OR L14 OR L17
L18 4056 S L3 NOT L18
L19

FILE 'CAPLUS' ENTERED AT 08:27:40 ON 03 MAR 2003

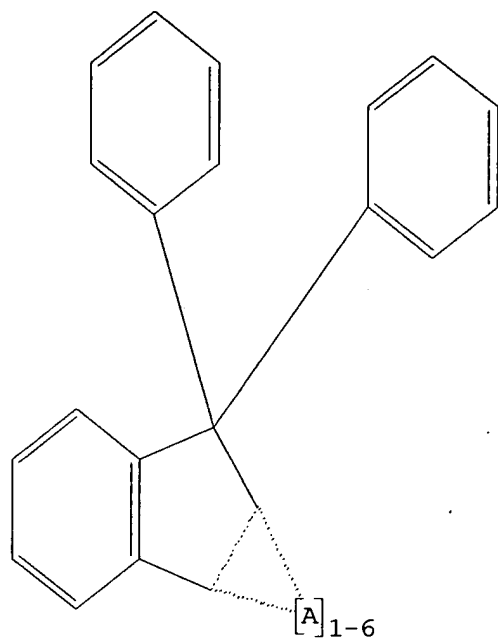
L20 2320 S L19
L21 170156 S PROLIFER?
L22 3 S L20 AND L21

FILE 'REGISTRY' ENTERED AT 08:33:33 ON 03 MAR 2003
STRUCTURE UPLOADED

L23 50 S L23 SSS SAM SUB=L3
L24 3851 S L23 SSS FUL SUB=L3
L25 207 S L19 NOT L25
L26

=> d 123

L23 HAS NO ANSWERS
L23 STR



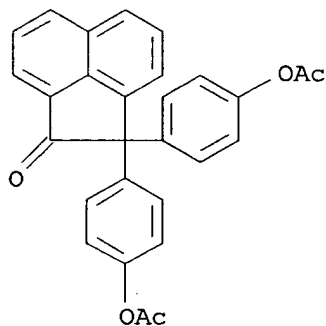
Structure attributes must be viewed using STN Express query preparation.

=> s 126

L27 110 L26

=> d 127 1-110 bib,ab,hitstr

L27 ANSWER 1 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:764036 CAPLUS
 DN 138:56329
 TI Pinacol rearrangement in the polymer backbone: Synthesis of novel reactive polymers with condensed benzopinacol units in the main chain and their complete rearrangement to poly(benzopinacolone)s
 AU Otsuka, Hideyuki; Onozuka, Iji; Shioya, Takeo; Endo, Takeshi
 CS Chemical Resources Laboratory, Tokyo Institute of Technology, Yokohama, 226-8503, Japan
 SO Macromolecular Chemistry and Physics (2002), 203(12), 1824-1832
 CODEN: MCHPES; ISSN: 1022-1352
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 AB Novel reactive polymers with condensed. benzopinacol moieties in the main chain were synthesized and their acid-catalyzed pinacol rearrangement in the polymer backbone proceeded to afford poly(benzopinacolone)s quant. Since the pinacol rearrangement shows an intramol. mechanism, no crossover between the polymer chains was obsd. through the rearrangement. Although the no.-averaged mol. wts. and their distributions were not changed, the optical and thermal properties of the poly(benzopinacolone)s were completely different from the parent poly(benzopinacolone)s.
 IT **265661-95-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (pinacol rearrangement in polymer backbone: synthesis of novel reactive polymers with condensed benzopinacol units in main chain and their complete rearrangement to poly(benzopinacolone)s)
 RN 265661-95-8 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-bis[4-(acetyloxy)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 2001:799890 CAPLUS

DN 136:37305

TI Low-temperature x-ray structural analysis of propanedinitrile derivatives substituted with a bis(4-dimethylaminophenyl)methyl group: the origin of elongation of the donor-acceptor substituted C-C bond

AU Suzuki, Takanori; Ono, Kazunori; Kawai, Hidetoshi; Tsuji, Takashi
CS Division of Chemistry, Graduate School of Science, Hokkaido University, Sapporo, 060-0810, Japan

SO Journal of the Chemical Society, Perkin Transactions 2 (2001), (9), 1798-1801

CODEN: JCSPGI; ISSN: 1472-779X

PB Royal Society of Chemistry

DT Journal

LA English

AB Push-pull type substitution at Cspl-Cspl in the title compds. does not have special electronic effects on the bond length, and the obsd. expansion can be best accounted for by steric interaction between substituents.

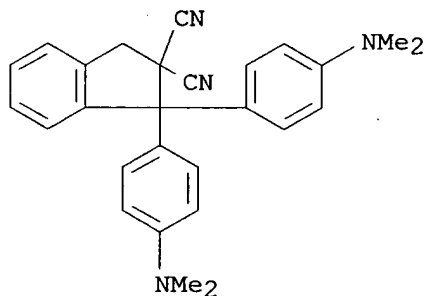
IT 380614-23-3P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(crystallog.; origin of elongation of donor-acceptor substituted C-C bond low-temp. x-ray structural anal. of propanedinitrile derivs. substituted contg. bis(4-dimethylaminophenyl)methyl group)

RN 380614-23-3 CAPLUS

CN 2H-Indene-2,2-dicarbonitrile, 1,1-bis[4-(dimethylamino)phenyl]-1,3-dihydro-(9CI) (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 3 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 2000:296195 CAPLUS

DN 133:43120

TI Ozonation of 1,1,2,2-tetraphenylethene revisited: evidence for electron-transfer oxygenations

AU Schank, Kurt; Beck, Horst; Buschlinger, Michael; Eder, Jorg; Heisel, Thomas; Pistorius, Susanne; Wagner, Christiane

CS Department of Organic Chemistry, University of Saarland, Saarbrücken, D-66041, Germany

SO Helvetica Chimica Acta (2000) 83(4), 801-826

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

AB Ozonolysis of 1,1,2,2-tetraphenylethene (TPE, 1) were described many times in the literature, but the reports are contradictory. This reaction is particularly important for understanding the mechanism of alkene ozonolysis, in view of possible stabilization of reactive intermediates by aryl groups. Thus, systematic studies of ozonolysis in both aprotic solvents and in protic solvents are reported here. Attention is directed to the following details that were underestimated in the past: (i) the actual electronic structure of ground-state ozone (O₃), (ii) differentiation between strained and unstrained alkenes, (iii) the significance of both the O₃ concn. and the TPE concn., (iv) the influence of various solvents, including pyridine, (v) the influence of the reaction temp., (vi) the role of electron-transfer catalysis (ETC) and, (vii) the effect of structural modifications. Results suggest that ozonolysis of TPE (1) does not include a 1.3-dipolar reaction step, but represents a particularly interesting example of electron-donor (TPE)/electron-acceptor (O₃) redox chem. The present studies include several crucial results. First, pure 3,3,6,6-tetraphenyltetraoxane (I, m.p. 221.degree. (dec.)) and pure tetraphenylethylene ozonide (II, m.p. 153.degree. (dec.)) are prepd. for the 1st time, although I and II have long been known. Second, the singlet diradical character of O₃, lessened by hypervalent-electron interaction and predicted by different calcns., is evidenced via reaction with the spin trap galvinoxyl [2,6-bis(1,1-dimethylethyl)-4-[[3,5-bis(1,1-dimethylethyl)-4-oxocyclohexa-2,5-dien-1-ylidene]methyl]phenoxy] (8), and the zwitterionic reaction behavior of ground-state O₃ is ruled out. Third, the electron-acceptor ability of O₃ is evidenced by reactions with suitable tetraaryl ethylenes: it is enhanced by addn. of catalytic amts. of protons or Lewis acids. Fourth, the obsd. distribution of the O₃ O-atoms to the 2 different olefinic C-atoms of the unsym. alkene III (R = p-MeOC₆H₄) is in full agreement with an initial single-electron transfer (SET) step, followed by a radical mono-oxygenation to cause the crucial C,C cleavage. Final dioxygenation should lead to the generally (ozonides, tetraoxanes, hydroperoxides). The regioselectivity is inconsistent with the expected decay of an intermediate primary ozonide. Finally, the treatment of 1,2-bis(4-methoxyphenyl)acenaphthylene (36) with O₃ (simultaneous transfer of 3 O-atoms) leads to the same exptl. result as a stepwise transfer of one O-atom followed by a transfer of 2 O-atoms.

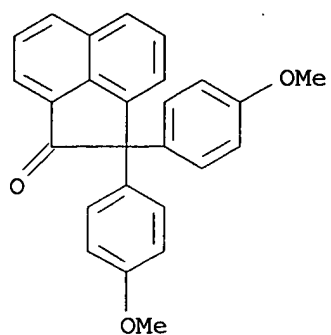
IT 275822-28-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(electron-transfer oxygenations in ozonation of 1,1,2,2-tetraphenylethene)

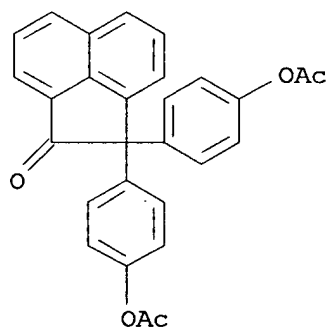
RN 275822-28-1 CAPLUS

CN 1(2H)-Acenaphthylenone, 2,2-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

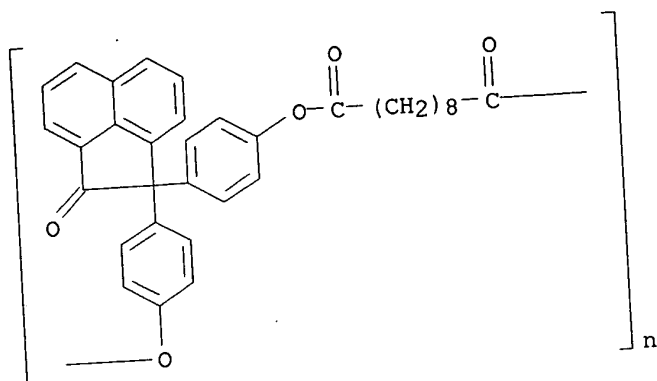


RE.CNT 155 THERE ARE 155 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

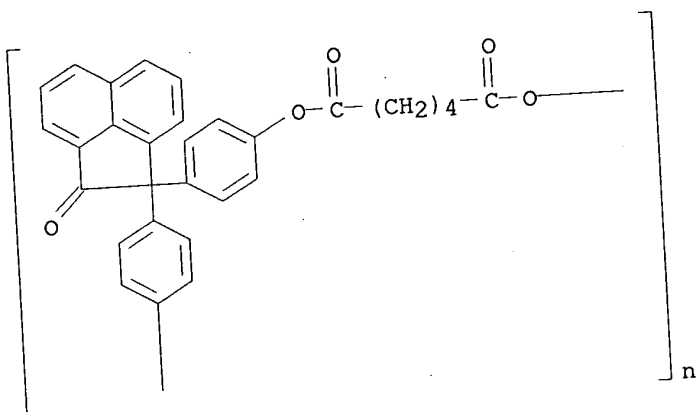
L27 ANSWER 4 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:170506 CAPLUS
 DN 132:308755
 TI Pinacol rearrangement in the polymer backbone: a new class of reactive polymers with condensed benzopinacol units in the main chain
 AU Otsuka, Hideyuki; Onozuka, Iji; Endo, Takeshi
 CS Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Yokohama, 226-8503, Japan
 SO Tetrahedron Letters (2000), 41(9), 1433-1437
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB Novel reactive polyesters based on 1,2-dimethoxy-1,2-bis(4-hydroxyphenyl)acenaphthene and adipoyl, suberoyl, or sebacoyl chloride were synthesized and their acid-catalyzed pinacol rearrangement in the polymer backbone proceeded to afford poly(benzopinacolones) quant. with elimination of methanol.
 IT **265661-95-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyester model compd.; from pinacol rearrangement of bis(acetoxyphenyl)dimethoxyacenaphthene)
 RN 265661-95-8 CAPLUS
 CN 1(2H)-Acenaphthylene, 2,2-bis[4-(acetyloxy)phenyl]- (9CI) (CA INDEX NAME)



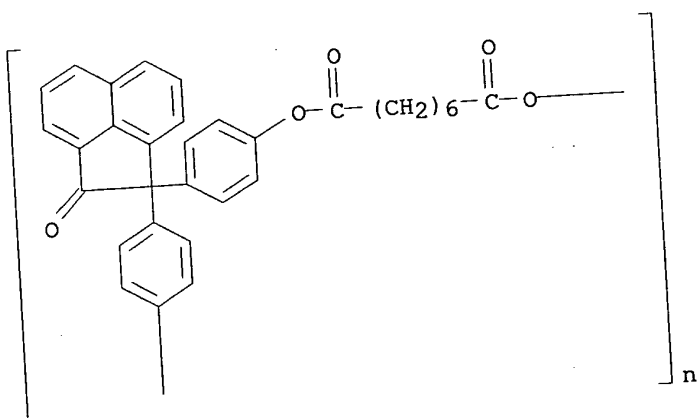
IT **25950-55-4P 265661-96-9P 265661-97-0P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. by pinacol rearrangement of bis(hydroxyphenyl)dimethoxyacenaphthene polyester)
 RN 25950-55-4 CAPLUS
 CN Poly[oxy-1,4-phenylene(2-oxo-1(2H)-acenaphthylenylidene)-1,4-phenyleneoxy(1,10-dioxo-1,10-decanediyl)] (9CI) (CA INDEX NAME)



RN 265661-96-9 CAPLUS
 CN Poly[oxy(1,6-dioxo-1,6-hexanediyl)oxy-1,4-phenylene(2-oxo-1(2H)-
 acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 265661-97-0 CAPLUS
 CN Poly[oxy(1,8-dioxo-1,8-octanediyl)oxy-1,4-phenylene(2-oxo-1(2H)-
 acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



L27 ANSWER 5 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1999:444666 CAPLUS

DN 131:199595

TI Synthesis of a stable mimic for the ring-closed form of gallein, featuring a novel one-pot boron-tribromide-mediated intramolecular cyclisation process

AU Crew, Andrew P. A.; Lyons, Amanda J.; Camp, Nicholas P.

CS Department of Chemistry, Proteus Molecular Design Limited, Macclesfield, SK11 0JL, UK

SO Synlett (1999), (7), 1133-1135

CODEN: SYNLES; ISSN: 0936-5214

PB Georg Thieme Verlag

DT Journal

LA English

OS CASREACT 131:199595

AB Treatment of 9-[2-(2-methyl-1,3-dioxolan-2-yl)phenyl]-3,4,5,6-tetrabenzoxo-9H-xanthen-9-ol, I [X = O(CH₂)₂O, R = H, R₁ = OH, R₂ = PhCH₂] with excess BBr₃ at -78.degree., and warming to room temp., provides a facile route to 3,4,5,6-tetrahydroxy-spiro[1H-indene-1,9-(9H)-xanthen-3(2H)-one], I (X = O, RR₁ = bond, R₂ = H), a stable mimic for the ring-closed form of gallein.

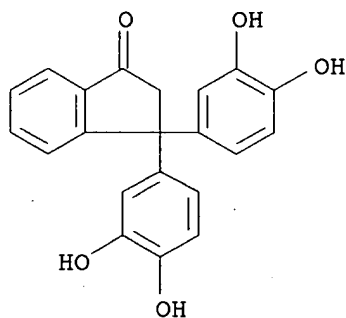
IT 241488-04-0P 241488-05-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of analog of ring-closed gallein by BBr₃-mediated intramol. cyclocondensation)

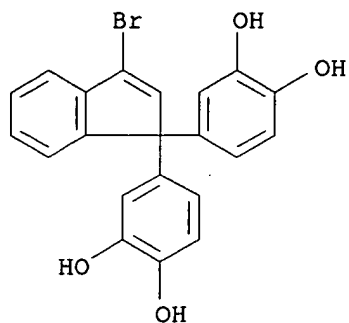
RN 241488-04-0 CAPLUS

CN 1H-Inden-1-one, 3,3-bis(3,4-dihydroxyphenyl)-2,3-dihydro- (9CI) (CA INDEX NAME)



RN 241488-05-1 CAPLUS

CN 1,2-Benzenediol, 4,4'-(3-bromo-1H-inden-1-ylidene)bis- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 6 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1999:355727 CAPLUS

DN 131:18844

TI Preparation of 3,3-diphenylindanes and analogs as Ca²⁺-activated K⁺ channel inhibitorsIN Brugnara, Carlo; Halperin, Jose; Bellot, Emile M., Jr.; Froimowitz, Mark; Lombardy, Richard John; Clifford, John J.; Gao, Ying-Duo; Haidar, Reem M.; Kelleher, Eugene W.; Kher, Falguni M.; Moussa, Adel M.; Sachdeva, Yesh P.; Sun, Minghua; Taft, Heather N.; Lencer, Wayne I.; Alper, Seth

PA Children's Medical Center Corporation, USA; President and Fellows of Harvard College; Ion Pharmaceuticals, Inc.

SO PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DT Patent

LA English

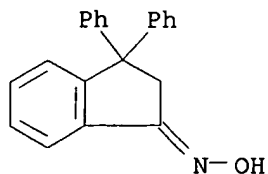
FAN.CNT 1

Diff Inv. Entity

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9926624	A1	19990603	WO 1998-US24968	19981120
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US 2002004519	A1	20020110	US 1998-159331	19980923
CA 2311129	AA	19990603	CA 1998-2311129	19981120
AU 9915988	A1	19990615	AU 1999-15988	19981120
EP 1032385	A1	20000906	EP 1998-960381	19981120
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE				
JP 2001523717	T2	20011127	JP 2000-521826	19981120
US 2002128256	A1	20020912	US 2001-880728	20010613 ← Pending
PRAI US 1997-975595	A	19971120 → Abn		
US 1998-159331	A	19980923 → Abn		
US 1998-159336	A	19980923 → Abn		
WO 1998-US24968	W	19981120		
OS MARPAT 131:18844				
AB	Title compds. [I; Z = CR1R2 or NR1; Z1 = CR3YR4; R1 = OR, SR, O2CR, etc.; R = H, alkyl, aryl, etc.; R1,R3 = H; R1R2 = O, S, NOR, atoms to complete a heterocyclic ring; R1R3,R2R3 = bond; R4 = H, OH, alkoxy, cyano, (di)(alkyl)amino, etc.; R5,R6 = (un)substituted Ph; R7 = H or 1-4 of halo, alkyl, alkoxy, etc.; Y = bond, alk(en)ylene, alkynylene] were prepd. Thus, Ph3CCH2CO2H was cyclized and the product oximated to give I [R5 = R6 = Ph, R7 = H, Z = C(:NOH), Z1 = CH2]. Data for biol. activity of I were given.			
IT	226087-86-1P 226087-87-2P 226087-88-3P 226087-89-4P 226087-90-7P 226087-91-8P 226087-92-9P 226087-93-0P 226087-94-1P 226087-95-2P 226087-96-3P 226087-97-4P 226087-98-5P 226087-99-6P 226088-00-2P 226088-01-3P 226088-02-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of 3,3-diphenylindanes and analogs as Ca ²⁺ -activated K ⁺ channel inhibitors)			

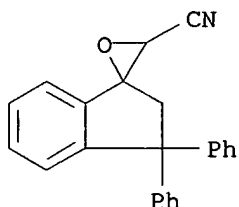
RN 226087-86-1 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-3,3-diphenyl-, oxime (9CI) (CA INDEX NAME)



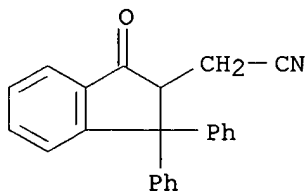
RN 226087-87-2 CAPLUS

CN Spiro[1H-indene-1,2'-oxirane]-3'-carbonitrile, 2,3-dihydro-3,3-diphenyl- (9CI) (CA INDEX NAME)



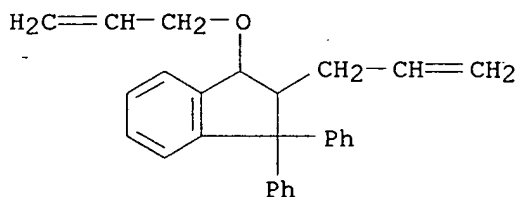
RN 226087-88-3 CAPLUS

CN 1H-Indene-2-acetonitrile, 2,3-dihydro-3-oxo-1,1-diphenyl- (9CI) (CA INDEX NAME)



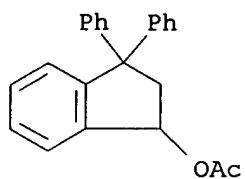
RN 226087-89-4 CAPLUS

CN 1H-Indene, 2,3-dihydro-1,1-diphenyl-2-(2-propenyl)-3-(2-propenyloxy)- (9CI) (CA INDEX NAME)



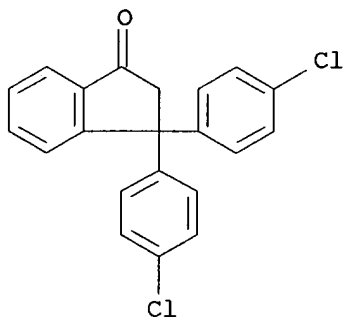
RN 226087-90-7 CAPLUS

CN 1H-Inden-1-ol, 2,3-dihydro-3,3-diphenyl-, acetate (9CI) (CA INDEX NAME)



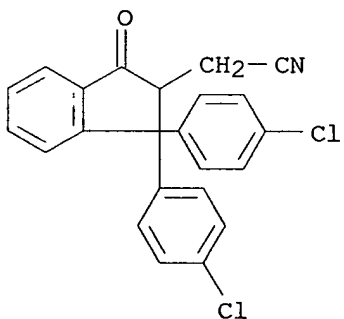
RN 226087-91-8 CAPLUS

CN 1H-Inden-1-one, 3,3-bis(4-chlorophenyl)-2,3-dihydro- (9CI) (CA INDEX NAME)



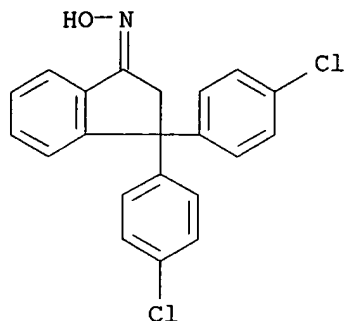
RN 226087-92-9 CAPLUS

CN 1H-Indene-2-acetonitrile, 1,1-bis(4-chlorophenyl)-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)



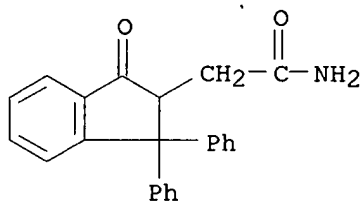
RN 226087-93-0 CAPLUS

CN 1H-Inden-1-one, 3,3-bis(4-chlorophenyl)-2,3-dihydro-, oxime (9CI) (CA INDEX NAME)



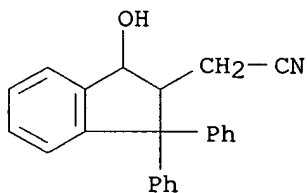
RN 226087-94-1 CAPLUS

CN 1H-Indene-2-acetamide, 2,3-dihydro-3-oxo-1,1-diphenyl- (9CI) (CA INDEX NAME)



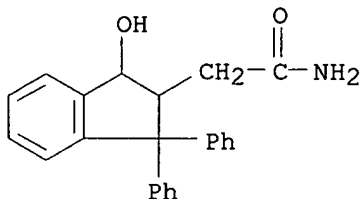
RN 226087-95-2 CAPLUS

CN 1H-Indene-2-acetonitrile, 2,3-dihydro-3-hydroxy-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 226087-96-3 CAPLUS

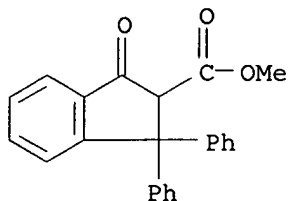
CN 1H-Indene-2-acetamide, 2,3-dihydro-3-hydroxy-1,1-diphenyl- (9CI) (CA INDEX NAME)



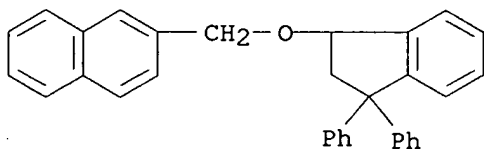
RN 226087-97-4 CAPLUS

CN 1H-Indene-2-carboxylic acid, 2,3-dihydro-3-oxo-1,1-diphenyl-, methyl ester

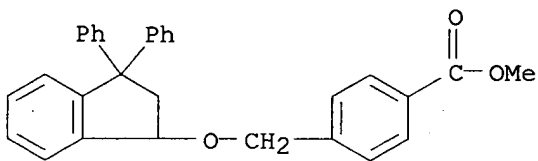
(9CI) (CA INDEX NAME)



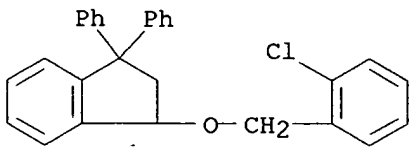
RN 226087-98-5 CAPLUS

CN Naphthalene, 2-[[2,3-dihydro-3,3-diphenyl-1H-inden-1-yl]oxy]methyl]-
(9CI) (CA INDEX NAME)

RN 226087-99-6 CAPLUS

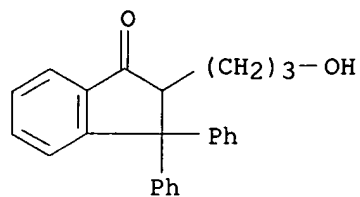
CN Benzoic acid, 4-[[2,3-dihydro-3,3-diphenyl-1H-inden-1-yl]oxy]methyl]-,
methyl ester (9CI) (CA INDEX NAME)

RN 226088-00-2 CAPLUS

CN 1H-Indene, 3-[(2-chlorophenyl)methoxy]-2,3-dihydro-1,1-diphenyl- (9CI)
(CA INDEX NAME)

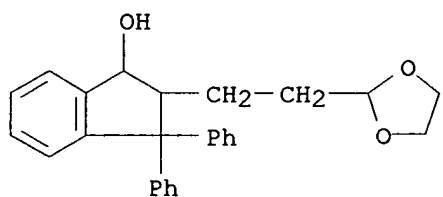
RN 226088-01-3 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-2-(3-hydroxypropyl)-3,3-diphenyl- (9CI) (CA
INDEX NAME)



RN 226088-02-4 CAPLUS

CN 1H-Inden-1-ol, 2-[2-(1,3-dioxolan-2-yl)ethyl]-2,3-dihydro-3,3-diphenyl-
(9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 7 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1999:355715 CAPLUS
 DN 131:18843
 TI Preparation of 3,3-diphenylindanes and analogs as Ca²⁺-activated K⁺ channel inhibitors
 IN Brugnara, Carlo; Halperin, Jose; Fluckiger, Rudolf; Bellott, Emile M., Jr.; Lombardy, Richard John; Clifford, John J.; Gao, Ying-Duo; Haidar, Reem M.; Kelleher, Eugene W.; Moussa, Adel M.; Sachdeva, Yesh P.; Sun, Minghua; Taft, Heather N.
 PA President and Fellows of Harvard College, USA; Children's Medical Center Corporation; Ion Pharmaceuticals, Inc.
 SO PCT Int. Appl., 78 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9926611	A1	19990603	WO 1998-US24819	19981120
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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CA 2310750	AA	19990603	CA 1998-2310750	19981120
AU 9924483	A1	19990615	AU 1999-24483	19981120
AU 745639	B2	20020328		
EP 1047411	A1	20001102	EP 1998-966732	19981120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9815576	A	20010717	BR 1998-15576	19981120
JP 2001523709	T2	20011127	JP 2000-521813	19981120
US 2002198188	A1	20021226	US 2002-43640	20020110
PRAI US 1997-975391	A1	19971120		
WO 1998-US24819	W	19981120		
US 2000-554849	B1	20000922		

Withdrawn →

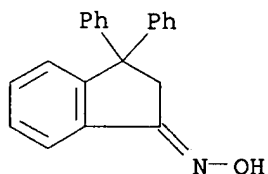
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OS MARPAT 131:18843
 AB Title compds. [I; Z = CR1R2 or NR1; Z1 = CR3YR4; R1 = OR, SR, O2CR, etc.; R = H, alkyl, aryl, etc.; R1,R3 = H; R1R2 = O, S, NOR, atoms to complete a heterocyclic ring; R1R3,R2R3 = bond; R4 = H, OH, alkoxy, cyano, (di)(alkyl)amino, etc.; R5,R6 = (un)substituted Ph; R7 = H or 1-4 of halo, alkyl, alkoxy, etc.; Y = bond, alk(en)ylene, alkynylene] were prepd. Thus, Ph3CCH2CO2H was cyclized and the product oximated to give I [R5 = R6 = Ph, R7 = H, Z = C(:NOH), Z1 = CH2]. Data for biol. activity of I were given.
 IT 226087-86-1P 226087-87-2P 226087-88-3P
 226087-89-4P 226087-90-7P 226087-91-8P
 226087-92-9P 226087-93-0P 226087-94-1P
 226087-95-2P 226087-96-3P 226087-97-4P
 226087-98-5P 226087-99-6P 226088-00-2P
 226088-01-3P 226088-02-4P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 3,3-diphenylindanes and analogs as Ca^{2+} -activated K^+ channel inhibitors)

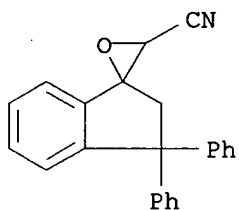
RN 226087-86-1 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-3,3-diphenyl-, oxime (9CI) (CA INDEX NAME)



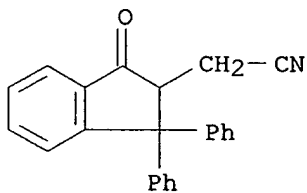
RN 226087-87-2 CAPLUS

CN Spiro[1H-indene-1,2'-oxirane]-3'-carbonitrile, 2,3-dihydro-3,3-diphenyl- (9CI) (CA INDEX NAME)



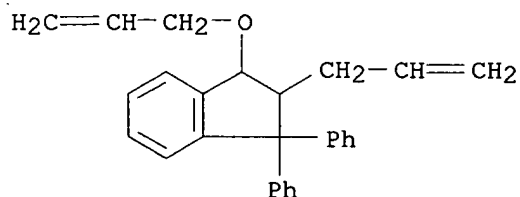
RN 226087-88-3 CAPLUS

CN 1H-Indene-2-acetonitrile, 2,3-dihydro-3-oxo-1,1-diphenyl- (9CI) (CA INDEX NAME)



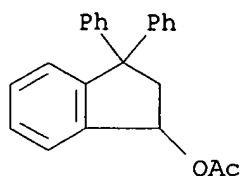
RN 226087-89-4 CAPLUS

CN 1H-Indene, 2,3-dihydro-1,1-diphenyl-2-(2-propenyl)-3-(2-propenyloxy)- (9CI) (CA INDEX NAME)



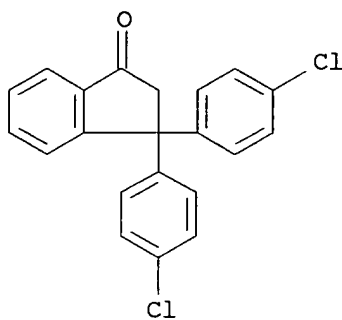
RN 226087-90-7 CAPLUS

CN 1H-Inden-1-ol, 2,3-dihydro-3,3-diphenyl-, acetate (9CI) (CA INDEX NAME)



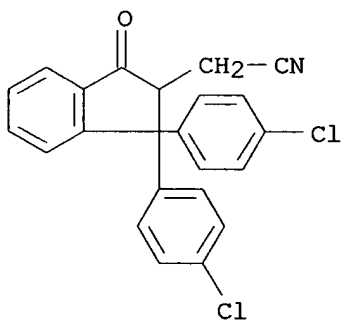
RN 226087-91-8 CAPLUS

CN 1H-Inden-1-one, 3,3-bis(4-chlorophenyl)-2,3-dihydro- (9CI) (CA INDEX NAME)



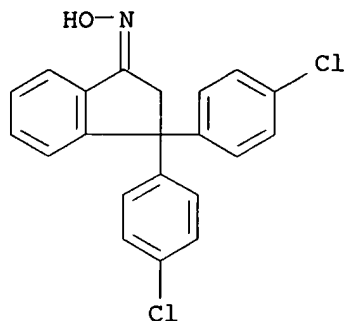
RN 226087-92-9 CAPLUS

CN 1H-Indene-2-acetonitrile, 1,1-bis(4-chlorophenyl)-2,3-dihydro-3-oxo- (9CI) (CA INDEX NAME)

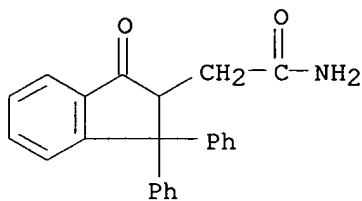


RN 226087-93-0 CAPLUS

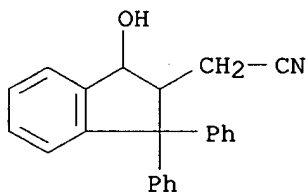
CN 1H-Inden-1-one, 3,3-bis(4-chlorophenyl)-2,3-dihydro-, oxime (9CI)- (CA INDEX NAME)



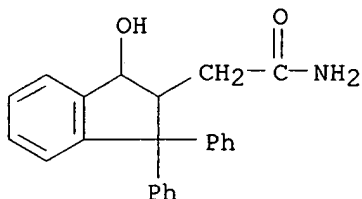
RN 226087-94-1 CAPLUS
 CN 1H-Indene-2-acetamide, 2,3-dihydro-3-oxo-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 226087-95-2 CAPLUS
 CN 1H-Indene-2-acetonitrile, 2,3-dihydro-3-hydroxy-1,1-diphenyl- (9CI) (CA INDEX NAME)

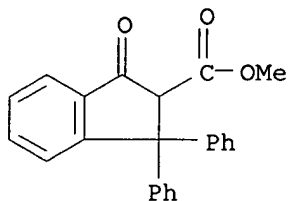


RN 226087-96-3 CAPLUS
 CN 1H-Indene-2-acetamide, 2,3-dihydro-3-hydroxy-1,1-diphenyl- (9CI) (CA INDEX NAME)

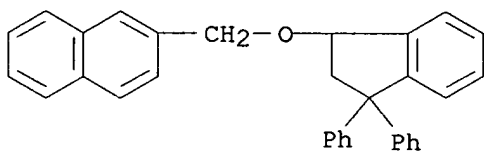


RN 226087-97-4 CAPLUS
 CN 1H-Indene-2-carboxylic acid, 2,3-dihydro-3-oxo-1,1-diphenyl-, methyl ester

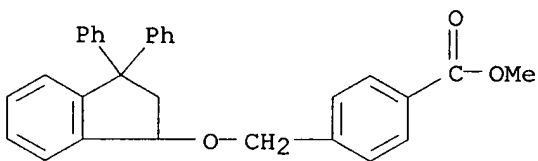
(9CI) (CA INDEX NAME)



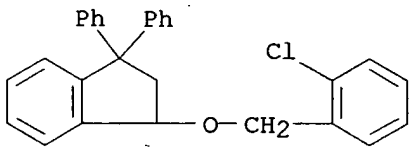
RN 226087-98-5 CAPLUS

CN Naphthalene, 2-[[2,3-dihydro-3,3-diphenyl-1H-inden-1-yl]oxy]methyl]-
(9CI) (CA INDEX NAME)

RN 226087-99-6 CAPLUS

CN Benzoic acid, 4-[[2,3-dihydro-3,3-diphenyl-1H-inden-1-yl]oxy]methyl]-,
methyl ester (9CI) (CA INDEX NAME)

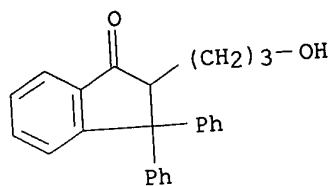
RN 226088-00-2 CAPLUS

CN 1H-Indene, 3-[(2-chlorophenyl)methoxy]-2,3-dihydro-1,1-diphenyl- (9CI)
(CA INDEX NAME)

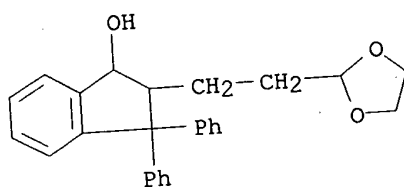
RN 226088-01-3 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-2-(3-hydroxypropyl)-3,3-diphenyl- (9CI) (CA
INDEX NAME)

10/043,640



RN 226088-02-4 CAPLUS
CN 1H-Inden-1-ol, 2-[2-(1,3-dioxolan-2-yl)ethyl]-2,3-dihydro-3,3-diphenyl-
(9CI) (CA INDEX NAME)



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 8 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1997:603449 CAPLUS

DN 127:247900

TI Chemistry in Superacids. 23. Preparation of Condensed Aromatics by
 Superacidic Dehydrative Cyclization of Aryl Pinacols and Epoxides

AU Klumpp, Douglas A.; Baek, Donald N.; Prakash, G. K. Surya; Olah, George A.
 CS Department of Chemistry, California State Polytechnic University, Pomona,
 CA, 91768, USA

SO Journal of Organic Chemistry (1997), 62(19), 6666-6671
 CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 127:247900

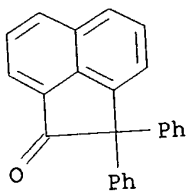
AB Aryl pinacols and epoxides are cleanly and in high yield converted via
 superacidic dehydrative cyclization to the corresponding condensed aroms.
 Dehydrative cyclization of benzopinacol, triphenylacetophenone, and
 tetraphenylethylene oxide give 9,10-diphenylphenanthrene as the major
 product in acidic media stronger than $H_0 = -11$. Aryl pinacol I forms the
 condensed arom. II as the major product in acidic media stronger than $H_0 =$
 -13.5 . It is proposed that the dehydrative cyclizations occur via
 dicationic intermediates. Substituted benzopinacols are prep'd. and give
 the corresponding phenanthrenes in high yields. The regiochem. of the
 cyclization of substituted benzopinacols is controlled by deactivating
 substituents on the aryl rings. Aryl pinacols derived from
 acenaphthenequinones also give condensed aroms. with superacidic triflic
 acid.

IT 85925-12-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (condensed aroms. by superacidic dehydrative cyclization of aryl
 pinacols and epoxides)

RN 85925-12-8 CAPLUS

CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 9 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1997:579730 CAPLUS
 DN 127:248359
 TI Preparation and enzymic hydrolysis and phosphorylation of chromogenic substrates glycofuranosides in detection of parasites
 IN Schramm, Vern L.; Furneaux, Richard Hubert; Tyler, Peter Charles; Clinch, Keith
 PA Industrial Research Ltd., N. Z.; Albert Einstein College of Medicine of Yeshiva University; Schramm, Vern L.; Furneaux, Richard Hubert; Tyler, Peter Charles; Clinch, Keith
 SO PCT Int. Appl., 58 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9731008	A1	19970828	WO 1997-NZ21	19970224
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9717390	A1	19970910	AU 1997-17390	19970224
US 2001019823	A1	20010906	US 1999-125808	19990222
US 6379911	B2	20020430		
US 2002132263	A1	20020919	US 2002-101074	20020318
PRAI NZ 1996-286059	A	19960223		
WO 1997-NZ21	W	19970224		
US 1999-125808	A1	19990222		

OS MARPAT 127:248359

AB The invention relates to a method of detecting and/or assaying nucleoside hydrolases or nucleoside phosphorylases using a chromogenic substrate. Preferred chromogenic substrates glycosides I (X = H, OH; Y = chromophore) and the substrates are hydrolyzed by the nucleoside hydrolase to yield ribose or 2-deoxyribose plus Y-OH. Those substrates may be phosphorylyzed by nucleoside phosphorylase to yield ribose-1-phosphate plus Y-OH. The methods may be used to detect and/or assay parasites in biol. samples. Thus, 4-formylphenyl .beta.-D-ribofuranoside was prepd. in detection of protozoan parasites such as Trypanosoma cruzi, Trypanosoma vaginalis, and Giardia intestinalis using nucleoside hydrolase and phosphorylase.

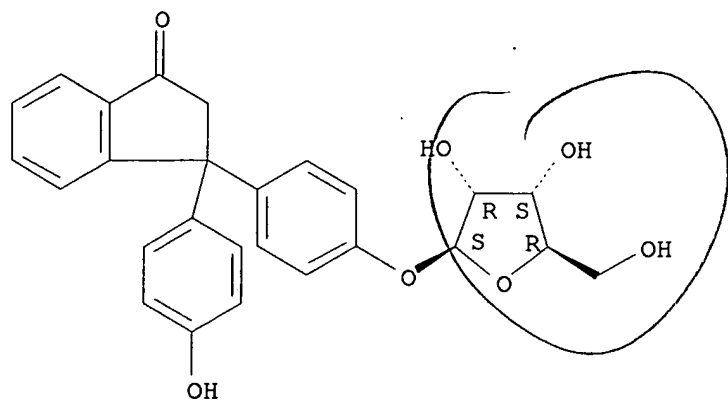
IT 195385-89-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. and enzymic hydrolysis and phosphorylation of chromogenic substrates glycofuranosides in detection of parasites)

RN 195385-89-8 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-3-(4-hydroxyphenyl)-3-[4-(.beta.-D-ribofuranosyloxy)phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 195385-88-7P

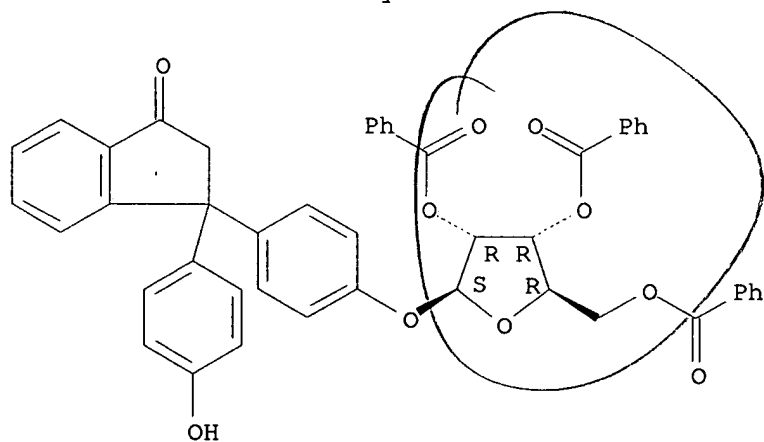
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and enzymic hydrolysis and phosphorylation of chromogenic substrates glycofuranosides in detection of parasites)

RN 195385-88-7 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-3-(4-hydroxyphenyl)-3-[4-[(2,3,5-tri-O-benzoyl-beta.-D-ribofuranosyl)oxy]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



10/043,640

L27 ANSWER 10 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1997:344473 CAPLUS

DN 126:312287

TI 3-Thiosemicarbazone-1,1-diphenylindanedione for improving physical endurance

IN Tomchin, A. B.; Vinogradov, V. M.; Marysheva, V. V.; Spivakova, R. P.

PA Tomchin, A.B., USSR; Vinogradov, V.M.; Marysheva, V.V.; Spivakova, R.P.

SO U.S.S.R.

From: Izobreteniya 1996, (25), 240.

CODEN: URXXAF

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE
PI	SU 1032745	A1	19960910
PRAI	SU 1981-3374576		19811112

APPLICATION NO.	DATE
SU 1981-3374576	19811112

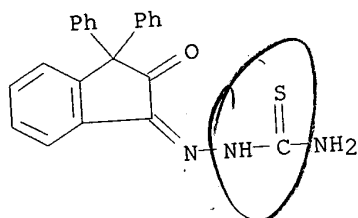
AB Title only translated.

IT 189368-31-8

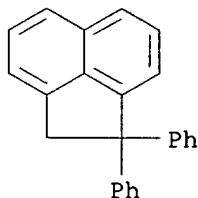
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(thiosemicarbazonediphenylindanedione for improving phys. endurance)

RN 189368-31-8 CAPLUS

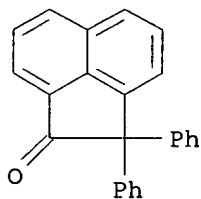
CN Hydrazinecarbothioamide, 2-(2,3-dihydro-2-oxo-3,3-diphenyl-1H-inden-1-ylidene)- (9CI) (CA INDEX NAME)



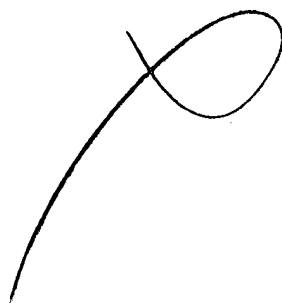
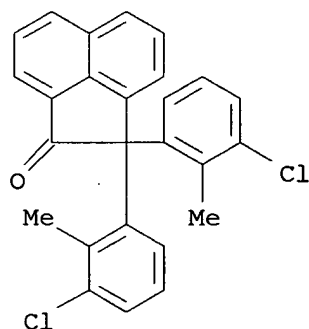
L27 ANSWER 11 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1997:196842 CAPLUS
DN 126:293167
TI Friedel-Crafts chemistry. XXI. Cyclization versus elimination behavior of some 1-naphthyl-containing carbinols under the influence of acid catalysts
AU Khalaf, Ali A.; Makki, Mohamad S. I. T.; Kabli, Rida A.
CS Fac. Sci., King Abdul-Aziz Univ., Saudi Arabia, 21413, India
SO Journal of the Indian Chemical Society (1997), 74(2), 148-151
CODEN: JICSAH; ISSN: 0019-4522
PB Indian Chemical Society
DT Journal
LA English
OS CASREACT 126:293167
AB The reaction outcome for carbinol derivs. I (R1 = H, Me, Ph; R2 = Me, Ph, benzyl; X = bond, CH2, CH2CH2) was dependent on exptl. conditions and on carbocation stabilities as well as steric interactions. Carbinol derivs. I (R1 = H, Ph; R2 = benzyl; X = bond) failed to undergo a cyclization to acenaphthenes and underwent an elimination reaction, instead. For other carbinol derivs., ring closure showed dependence on steric factors.
IT **189154-10-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 189154-10-7 CAPLUS
CN Acenaphthylene, 1,2-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



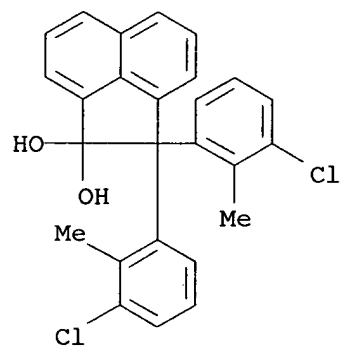
L27 ANSWER 12 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1997:119736 CAPLUS
DN 126:199326
TI High-intensity, laser-jet photochemistry: photodecarboxylation of
3,3-diphenyl-1H,3H-naphtho[cd][2]pyran-1-one
AU Wilson, R. Marshall; Schnapp, K. A.; Glos, Martin; Bohne, Cornelia; Dixon,
Andrew C.
CS Dep. Chem., Univ. Cincinnati, Cincinnati, OH, 45221-0172, USA
SO Chemical Communications (Cambridge) (1997), (2), 149-150
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
AB The photodecarboxylation of an aryl .delta.-lactone from an upper triplet
state is described.
IT 85925-12-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(photodecarboxylation of naphtho[cd][2]pyranones)
RN 85925-12-8 CAPLUS
CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 13 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1997:88711 CAPLUS
 DN 126:171262
 TI Synthesis and Diatropicity of trans-10b,10c-Dimethylacenaphthylene[1,2:e]-10b,10c-dihydropyrene : A Model Aromatic Molecule To Verify the Effect of Conjugation on the Diatropicity of an Annulene
 AU Lai, Yee-Hing; Chen, Pu; Dingle, Thomas W.
 CS Department of Chemistry, National University of Singapore, Kent Ridge, 119260, Singapore
 SO Journal of Organic Chemistry (1997), 62(4), 916-924
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 126:171262
 AB The title compd. I was synthesized from acenaphthenequinone in 11 steps with an overall yield of ca. 1.3%. Photochem. desulfurization of the thiacyclophanene II afforded the cyclophanene III. Photochem. isomerization of III to the tetrahydropyrene deriv. IV followed by DDQ oxidn. gave the desired dihydropyrene I. Compd. I is found to sustain only about 85% of the ring current of the parent dihydropyrene V. On the basis of our results, a significant effect on the diatropicity of the 14.pi. annulene in I due to its conjugation with a naphthalene moiety is verified. A correlation between theor. calcd. bond orders and exptl. obsd. coupling consts. for selected bonds in I indicates that the inductive effect, relative to the resonance effect, plays a major role in the net effect of conjugation obsd. in I. Among several derivs. of dihydropyrene V, a linear relationship is obsd. for an empirical correlation between the Me chem. shifts and the corresponding Dewar resonance energies assocd. with the benzenoid systems in conjugation with V. This may serve as a method to est. the resonance energies of other arom. systems relative to that of benzene. Compd. I underwent electrophilic nitration, acetylation, and bromination readily under mild conditions. The electrophiles reacted selectively with the dihydropyrene system in I and not the acenaphthylene moiety in conjugation.
 IT **186977-65-1P 186977-72-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of trans-10b,10c-dimethylacenaphthylene[1,2:e]-10b,10c-dihydropyrene model arom. mol. to verify conjugation effects on diatropicity of annulene deriv.)
 RN 186977-65-1 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-bis(3-chloro-2-methylphenyl)- (9CI) (CA INDEX NAME)



RN 186977-72-0 CAPLUS

CN 1,1(2H)-Acenaphthylenediol, 2,2-bis(3-chloro-2-methylphenyl)- (9CI) (CA
INDEX NAME)

L27 ANSWER 14 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1996:740335 CAPLUS
 DN 126:39836
 TI Hole transport material and use thereof
 IN Enokida, Toshio; Tamano, Michiko; Onikubo, Shunichi
 PA Toyo Ink Mfg Co, Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08259936	A2	19961008	JP 1995-65697	19950324
PRAI	JP 1995-65697		19950324		
OS	MARPAT 126:39836				

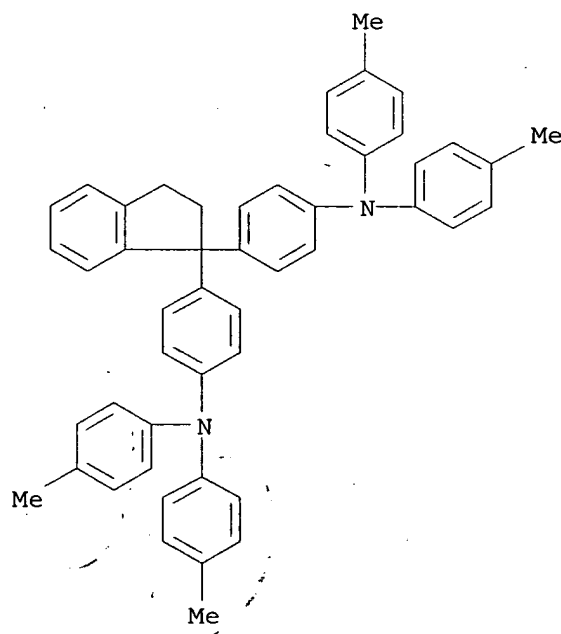
AB A hole transport material, suited for use in electrophotog. photoreceptors and electroluminescence devices, is represented by I (R1-14 = H, halo, cyano, OH, mercapto, and (un)substituted groups including alkyl, alkoxy, thioalkoxy, amino, aryloxy, arylthio, arom. carbocyclic, arom. heterocyclic, and heterocyclic groups; adjacent groups may form alicyclic, arom. carbocyclic, arom. heterocyclic, and heterocyclic (un)substituted groups; n = 2-7 integer).

IT **184022-36-4P 184022-42-2P 184022-69-3P**

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (hole transport material and use thereof)

RN 184022-36-4 CAPLUS

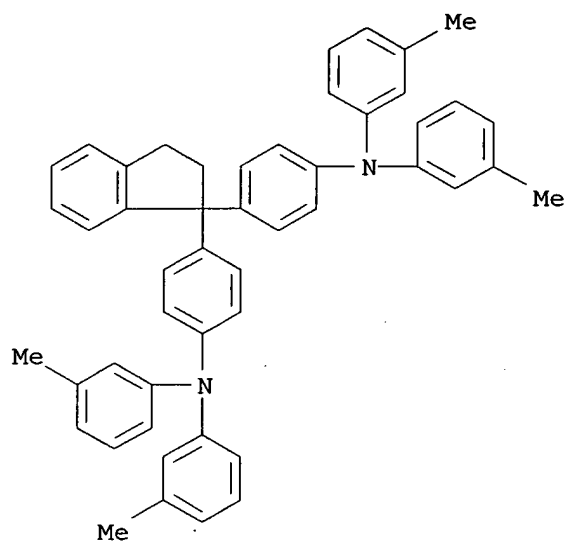
CN Benzenamine, 4,4'-(2,3-dihydro-1H-inden-1-ylidene)bis[N,N-bis(4-methylphenyl)-(9CI) (CA INDEX NAME)



RN 184022-42-2 CAPLUS

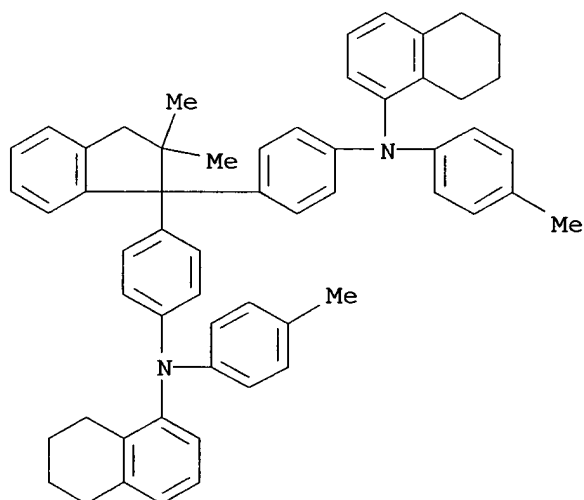
CN Benzenamine, 4,4'-(2,3-dihydro-1H-inden-1-ylidene)bis[N,N-bis(3-

methylphenyl)- (9CI) (CA INDEX NAME)



RN 184022-69-3 CAPLUS

CN 1-Naphthalenamine, N,N'-[(2,3-dihydro-2,2-dimethyl-1H-inden-1-ylidene)di-4,1-phenylene]bis[5,6,7,8-tetrahydro-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)]

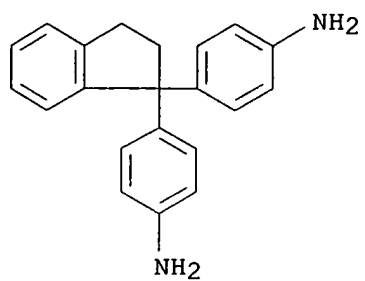


IT 113505-06-9P

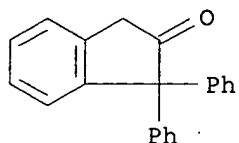
RL: SPN (Synthetic preparation); PREP (Preparation)
(hole transport material and use thereof)

RN 113505-06-9 CAPLUS

CN Benzenamine, 4,4'-[(2,3-dihydro-1H-inden-1-ylidene)bis- (9CI) (CA INDEX NAME)]



L27 ANSWER 15 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1996:705797 CAPLUS
DN 126:18480
TI Photochemical Ring-Opening Reactions of Substituted Chromenes and Isochromenes. [Erratum to document cited in CA83:78121]
AU Padwa, Albert; Au, Andrew; Lee, George A.; Owens, William
CS Dep. Chem., State Univ. New York, Buffalo, NY, USA
SO Journal of Organic Chemistry (1996), 61(25), 9072
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
AB The errors were not reflected in the abstr. or the index entries.
IT **54193-73-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of (Erratum))
RN 54193-73-6 CAPLUS
CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



Same as #25

L27 ANSWER 16 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1996:505211 CAPLUS

DN 125:247364

TI A cyclophane route to acenaphthylene[1,2-e]pyrene. Relative bathochromic shifts (color changes) in a series of 1,2-diarylacenaphthylenes

AU Lai, Yee-Hing; Chen, Pu; Cui, Yu Xin

CS Dep. Chem., Natl. Univ. Singapore, Singapore, 0511, Singapore

SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1996), (8), 1655-1660

CODEN: JCPKBH; ISSN: 0300-9580

PB Royal Society of Chemistry

DT Journal

LA English

AB 1,2-Bis(3-methylphenyl)acenaphthylene (I R = Me, R1 = H) was synthesized from acenaphthenequinone and 3-chlorotoluene. Bromination of this compd., followed by an intramol. cyclization with sodium sulfide, afforded the anti-thiacyclophane I (RR = CH₂SCH₂, R1 = H). Ring contraction reactions of I (RR = CH₂SCH₂, R1=H) lead to the isolation of II directly, presumably via valence isomerization of I (RR = CH:CH, R1 = H), followed by oxidn. of the 14d,14e-dihydro deriv. of II. An increase in the degree of conjugation in going from I (R = H, R1 = Me) to (R = Me, R1 = H) to (RR = CH₂SCH₂, R1=H) was evidenced by a visual color change from orange to orange-red to red and a significant bathochromic shift in the electronic absorption in the range 400-450 nm. A bathochromic shift was also obsd. in going from the 4,5-dihydro deriv. of II to II, consistent with a more extended conjugated system in the latter. Complete assignment of the protons in these last two compds. was achieved on the basis of 1H COSY and NOESY spectra. There was no observable through-space scalar coupling between H-1 and H-14 in II, but a strong NOE between them was evident. Tilting of the dihydropyrene moiety in the 4,5-dihydro deriv. of II due to the stereochem. demand of its ethylene bridge resulted in an upfield shift of its H-1 and H-14 signals relative to those in II.

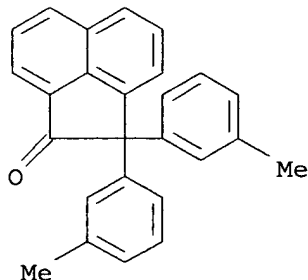
IT 181887-07-0P 181887-08-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cyclophane route to acenaphthylene[1,2-e]pyrene and bathochromic shifts in 1,2-diarylacenaphthylenes)

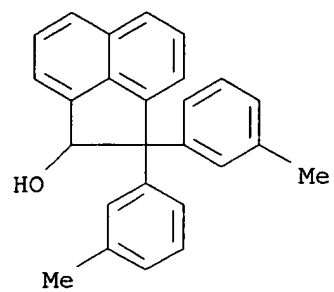
RN 181887-07-0 CAPLUS

CN 1(2H)-Acenaphthylenone, 2,2-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



RN 181887-08-1 CAPLUS

CN 1-Acenaphthylenol, 1,2-dihydro-2,2-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)



L27 ANSWER 17 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1995:804846 CAPLUS

DN 123:242155

TI Color developer composition and pressure-sensitive recording sheet using it

IN Nakatsuka, Masakatsu; Kida, Jotaro; Tanabe, Yoshimitsu; Hasegawa, Kyoharu

PA Mitsui Toatsu Chemicals, Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07179034	A2	19950718	JP 1993-323756	19931222
	JP 3320534	B2	20020903		
PRAI	JP 1993-323756		19931222		

OS MARPAT 123:242155

AB The compn. comprises a salicylic acid deriv. polyvalent metal salt color developer and a spirobiindane compd. I (X1-12 = H, alkyl, alkoxy, aryl). The pressure-sensitive recording sheet comprises a support coated with the color developer. The sheet shows good coloring property at low temp.

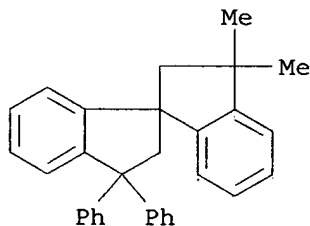
IT 105069-46-3

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(pressure-sensitive recording material contg. metal salicylate and spirobiindane compd. as color developer compn.)

RN 105069-46-3 CAPLUS

CN 1,1'-Spirobi[1H-indene], 2,2',3,3'-tetrahydro-3,3-dimethyl-3',3'-diphenyl-
(9CI) (CA INDEX NAME)



Handwritten note:
 $R^1 \times R^2$ together form
 3-8 membered Heterocycle...

L27 ANSWER 18 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1995:63683 CAPLUS

DN 122:31471

TI Chemistry of phosphorus Ylides. 13. Reactions with phosphacumulenes. VII: Novel synthesis of pyridazinones and pyridazinethiones from the reaction of cumulated phosphorus ylides with monohydrazones of .alpha.-diketones, acenaphthenequinone, and indanetrione

AU Soliman, Fouad M.; Yakout, El-Sayed M.; Said, Medhat M.

CS Department of Pesticide Chemistry, National Research Centre, Cairo, Egypt

SO Bulletin of the Chemical Society of Japan (1994), 67(8), 2162-6

CODEN: BCSJA8; ISSN: 0009-2673

DT Journal

LA English

AB The behavior of the reactive phosphacumulenes [i.e., (triphenylphosphoranylidene)ethenethione and (triphenylphosphoranylidene)ethenone] towards .alpha.-diketone monohydrazones, acenaphthenequinone monohydrazone and indanetrione monohydrazone was studied. In some cases the resulted phosphoranes directly cyclize by an intramol. Wittig reaction with the formation of pyridazinones and pyridazinethiones. Structure of the new products were assigned according to consistent anal. and spectroscopic data.

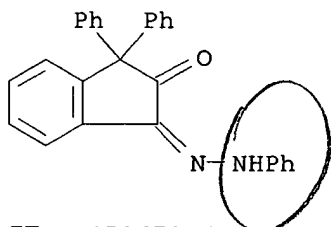
IT 159678-54-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of pyridazinoneor pyridazinethione from phosphacumulene and hydrazone)

RN 159678-54-3 CAPLUS

CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl-, 1-(phenylhydrazone) (9CI) (CA INDEX NAME)



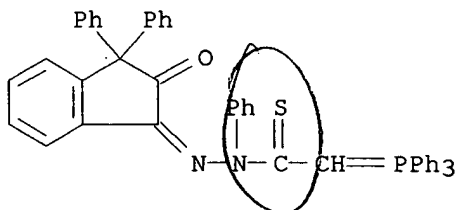
IT 159678-56-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

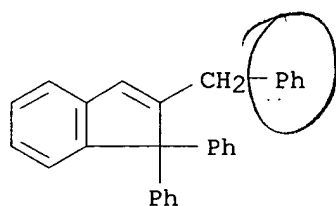
(prepn. of pyridazinoneor pyridazinethione from phosphacumulene and hydrazone)

RN 159678-56-5 CAPLUS

CN Ethanethioic acid, (triphenylphosphoranylidene)-, (2,3-dihydro-2-oxo-3,3-diphenyl-1H-inden-1-ylidene)phenylhydrazide (9CI) (CA INDEX NAME)

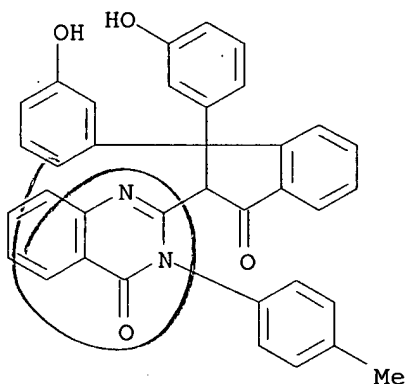


L27 ANSWER 19 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1994:533645 CAPLUS
DN 121:133645
TI Synthesis of diastereoisomeric 2-benzyl-1,2-diphenylindans
AU Alesso, Elba N.; Bianchi, Daniel E.; Moltrasio Iglesias, Graciela Y.;
Gonzalez Sierra, Manuel; Aguirre, Jose M.
CS Fac. Farm. Bioquimica, Univ. Buenos Aires, Buenos Aires, 1113, Argent.
SO Australian Journal of Chemistry (1994), 47(7), 1237-47
CODEN: AJCHAS; ISSN: 0004-9425
DT Journal
LA English
AB The diastereoisomeric 2-benzyl-1,2-diphenylindan-1-ols were prepd. and
subjected to deoxygenation reactions under a variety of conditions to
obtain 2-benzyl-1,2-diphenylindan. The stereochem. of these compds. has
been characterized on the basis of chem. and spectroscopic evidence.
IT **157133-62-5P**
RL: SPN (Synthetic preparation); PREP (Préparation)
(prepn. of)
RN 157133-62-5 CAPLUS
CN 1H-Indene, 1,1-diphenyl-2-(phenylmethyl)- (9CI) (CA INDEX NAME)



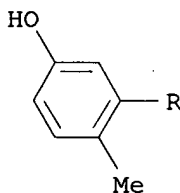
R⁴ is not phenyl!

L27 ANSWER 20 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1992:58595 CAPLUS
 DN 116:58595
 TI Electronic and vibrational spectra of some 4H-3,1-(2-phthalone)benzoxazin-4-one and some 4(3H)-quinazolinones
 AU El-Hefnawy, G. B.
 CS Fac. Sci., Tanta Univ., Tanta, Egypt
 SO Delta Journal of Science (1989), 13(1), 215-27
 CODEN: DJSCES; ISSN: 1012-5965
 DT Journal
 LA English
 AB Electronic absorption spectra of 4H-3,1-(2-phthalone)benzoxazin-4-one and various 4(3H)-quinazolinones have been measured at room temp. in different org. solvents. Spectral changes due to substitution and change of solvent are interpreted in relation to mol. structure. The IR are analyzed and interpreted in relation to mol. structure.
 IT **80821-58-5 80821-59-6**
 RL: PRP (Properties)
 (IR and UV of, solvent effects on)
 RN 80821-58-5 CAPLUS
 CN 4(3H)-Quinazolinone, 2-[2,3-dihydro-1,1-bis(3-hydroxyphenyl)-3-oxo-1H-inden-2-yl]-3-(4-methylphenyl)- (9CI) (CA INDEX NAME)

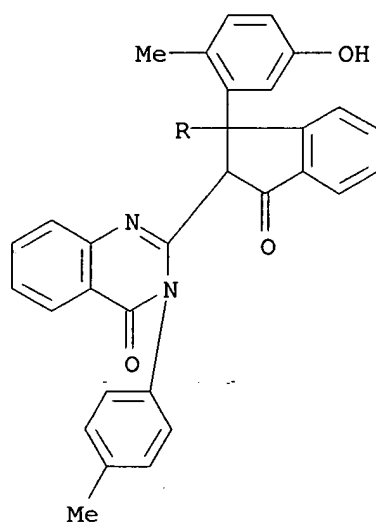


3-8 included H₂ in claims.

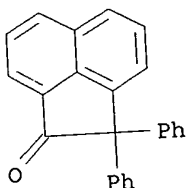
RN 80821-59-6 CAPLUS
 CN 4(3H)-Quinazolinone, 2-[2,3-dihydro-1,1-bis(5-hydroxy-2-methylphenyl)-3-oxo-1H-inden-2-yl]-3-(4-methylphenyl)- (9CI) (CA INDEX NAME)



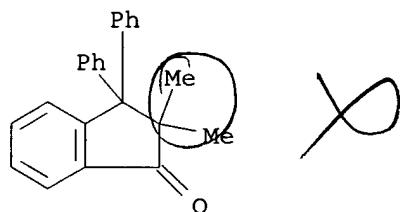
PAGE 1-A



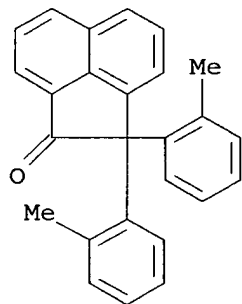
L27 ANSWER 21 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1991:471071 CAPLUS
 DN 115:71071
 TI Reduction of tetraarylpinacolones to triarylmethanes by action of lithium
 aluminum hydride (LAH) in pyridine
 AU Tanwari, Z.
 CS Inst. Chem., Univ. Sindh, Jamshoro, Pak.
 SO Journal of the Chemical Society of Pakistan (1990), 12(4), 351-2
 CODEN: JCSPDF; ISSN: 0253-5106
 DT Journal
 LA English
 OS CASREACT 115:71071
 AB Reductive cleavage of tetraarylpinacolones (4-RC₆H₄)₂CPhCOPh (I; R = H,
 Ph) with LiAlH₄ in pyridine gave triarylmethanes (4-RC₆H₄)₂CHPh and
 PhCH₂OH. Similarly, 9-benzoyl-9-phenylfluorene gave 9-phenylfluorene.
 Attempted cleavage of I (R = MeO), 2,2-diphenyl-1-acenaphthenone, and
 10,10-diphenyl-9-phenanthrone gave only redn. products.
 IT **85925-12-8**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (attempted bond cleavage of, with lithium aluminum hydride in pyridine,
 redn. in)
 RN 85925-12-8 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



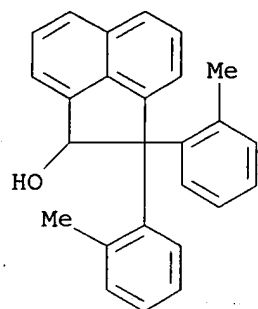
L27 ANSWER 22 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1991:228818 CAPLUS
 DN 114:228818
 TI Thermal decomposition of 3,3,5-trisubstituted 4,4-dimethyl-4,5-dihydro-5-hydroperoxy-3H-pyrazoles: route to .beta.,.gamma.-unsaturated ketones
 AU Baumstark, Alfons L.; Vasquez, Pedro C.
 CS Dep. Chem., Georgia State Univ., Atlanta, GA, 30303, USA
 SO Journal of Heterocyclic Chemistry (1991), 28(1), 113-17
 CODEN: JHTCAD; ISSN: 0022-152X
 DT Journal
 LA English
 OS CASREACT 114:228818
 AB The thermal decompn. of a series of cyclic .alpha.-azo hydroperoxides (I; R, R2 = Me, Ph, p-anisyl; R1 = Me, Ph) synthesized by oxidn. of the corresponding dihydropyrazoles, proceeded smoothly with evolution of nitrogen to give RC(:CH2)CMe2COR2 as major products in .apprx.60% yield. The reaction mechanism is also discussed. The authors recommend caution during the crystn. of (I).
 IT **133610-09-0P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 133610-09-0 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-2,2-dimethyl-3,3-diphenyl- (9CI) (CA INDEX NAME)



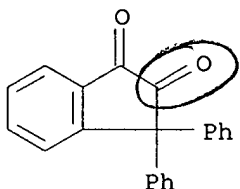
L27 ANSWER 23 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1990:216070 CAPLUS
 DN 112:216070
 TI Proton NMR spectroscopic studies of rotational isomers of several
 1,2-diarylacenaphthylenes: conformational barriers and buttressing
 effects
 AU Lai, Yee Hing; Chen, Pu
 CS Dep. Chem., Natl. Univ. Singapore, Kent Ridge, 0511, Singapore
 SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic
 Chemistry (1972-1999) (1989), (11), 1665-70
 CODEN: JCPKBH; ISSN: 0300-9580
 DT Journal
 LA English
 OS CASREACT 112:216070
 AB The conformational behavior of 1,2-di-o-tolylacenaphthylene and seven of
 its 3',3''-disubstituted derivs. has been investigated. The existence of
 the syn and anti isomers is evident from the resolu. of the two resp.
 pairs of Me groups in their 1H NMR spectra at room temp. Dynamic 1H NMR
 studies indicate that the rotational barriers, in the range 76-85 kJ
 mol-1, are dependent on the nature of the 3',3''-substituents. The
 buttressing effect of these substituents follow the order: H < CN < CH3 <
 Cl < CH2OH < CHO .apprxeq. CH2Br. Interestingly, one of the precursors (a
 pinacol) to 1,2-di-o-tolylacenaphthylene shows both a propelling process
 and free rotation of the aryl rings. The corresponding pinacolone also
 exhibits a possible propelling interconversion of the two tolyl rings.
 IT **127158-67-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and conformational anal. of)
 RN 127158-67-2 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)



IT **127158-68-3P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and redn. of)
 RN 127158-68-3 CAPLUS
 CN 1-Acenaphthylenol, 1,2-dihydro-2,2-bis(2-methylphenyl)- (9CI) (CA INDEX
 NAME)

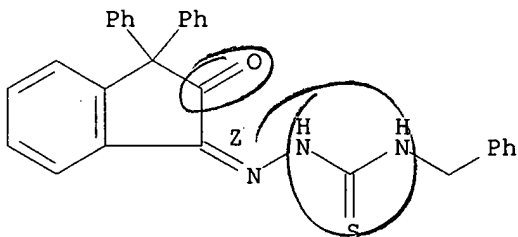


L27 ANSWER 24 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1989:192399 CAPLUS
 DN 110:192399
 TI Semicarbazones and thiosemicarbazones of acyclic and carbocyclic types.
 IV. Reaction of 1,2-indandione with thiosemicarbazides
 AU Tomchin, A. B.; Marysheva, V. V.
 CS USSR
 SO Zhurnal Organicheskoi Khimii (1988), 24(9), 1827-35
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 OS CASREACT 110:192399
 AB The direction of reaction of 1,2-indandione and its derivs. with thiosemicarbazides and semicarbazides and the geometric configuration of the products depends on the substituents on the methylene group of the diketone. Thus, condensation with unsubstituted 1,2-indandione takes place at the carbonyl group in position 2, with the 3,3-di-Ph deriv. at position 1, but with the 3,3-di-Me deriv. the reaction proceeds in both directions. Z-Isomers are formed from substituted 1,2-indandiones and from the unsubstituted compd. E-isomers are preferentially formed, which in solvents slowly invert their configurations.
 IT **7312-39-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with semicarbazides and thiosemicarbazides)
 RN 7312-39-2 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



IT **120242-78-6P 120242-79-7P 120242-82-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 120242-78-6 CAPLUS
 CN Hydrazinecarbothioamide, 2-(2,3-dihydro-2-oxo-3,3-diphenyl-1H-inden-1-ylidene)-N-(phenylmethyl)-, (Z)- (9CI) (CA INDEX NAME)

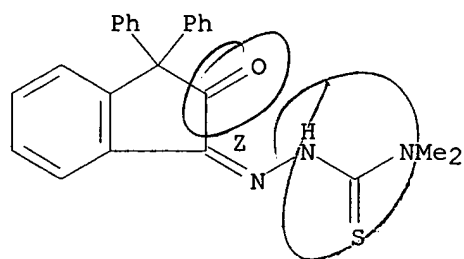
Double bond geometry as shown.



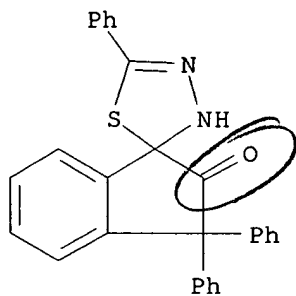
RN 120242-79-7 CAPLUS
 CN Hydrazinecarbothioamide, 2-(2,3-dihydro-2-oxo-3,3-diphenyl-1H-inden-1-

ylidene)-N,N-dimethyl-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 120242-82-2 CAPLUS

CN Spiro[1H-indene-1,2' (3'H)-[1,3,4]thiadiazol]-2(3H)-one, 3,3,5'-triphenyl-
(9CI) (CA INDEX NAME)

L27 ANSWER 25 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1989:153506 CAPLUS
 DN 110:153506

TI Neighboring group participation in the acetolysis of 1,1,1-triaryl-3-diazo-2-propanones. An unprecedented 1,3 shift of an aryl group via a five-membered transition state
 AU Rosnati, Vittorio; Di Vona, M. Luisa; Pusino, Alba; Saba, Antonio
 CS Dip. Sci. Tecnol. Chim., II Univ. Roma, Rome, 00173, Italy
 SO Tetrahedron Letters (1988), 29(33), 4193-6
 CODEN: TELEAY; ISSN: 0040-4039

DT Journal
 LA English

OS CASREACT 110:153506

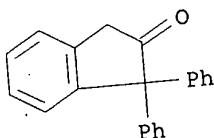
AB The acetolysis of diazo ketones $\text{ArPh}_2\text{CCOCHN}_2$ ($\text{Ar} = \text{Ph}, 4\text{-MeOC}_6\text{H}_4,$ 4-HOC $_6\text{H}_4$) leads to the corresponding indanones I ($\text{R} = \text{H}, \text{MeO}, \text{HO}, \text{resp.}$) and to the rearranged acetates, $\text{Ph}_2(\text{AcO})\text{CCOCH}_2\text{Ar}'$ (II; $\text{Ar}' = \text{Ph}, 3\text{-MeOC}_6\text{H}_4, 3\text{-HOC}_6\text{H}_4, \text{resp.}$). The formation of II can be explained in terms of a mechanism involving the same transition state responsible for the ring closure to I.

IT 54193-73-6P 119884-38-7P 119884-39-8P
 119884-41-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)

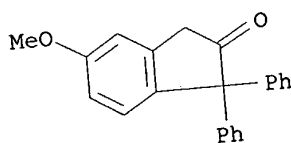
RN 54193-73-6 CAPLUS

CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



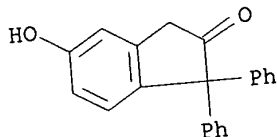
RN 119884-38-7 CAPLUS

CN 2H-Inden-2-one, 1,3-dihydro-5-methoxy-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 119884-39-8 CAPLUS

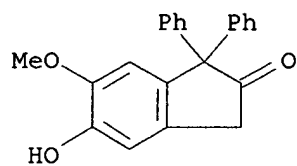
CN 2H-Inden-2-one, 1,3-dihydro-5-hydroxy-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 119884-41-2 CAPLUS

CN 2H-Inden-2-one, 1,3-dihydro-5-hydroxy-6-methoxy-1,1-diphenyl- (9CI) (CA INDEX NAME)

INDEX NAME)



L27 ANSWER 26 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1988:492791 CAPLUS

DN 109:92791

TI Preparation of N-amidino-N'-benzopyranyl- and -thiopyranylhydrazones as cardiovascular agents

PA Bayer A.-G., Fed. Rep. Ger.

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 21 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 85101799	A	19870117	CN 1985-101799	19850401
PRAI	CN 1985-101799		19850401		

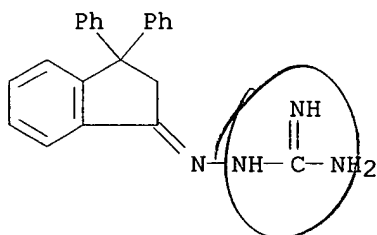
AB The title compds. [I; R = H, halo, C1-10 alkyl, etc.; m = 1-4; A = bond, (substituted) alkylene, alkenylene, CO, C:NOH, etc.; X = (substituted) alkylene, (substituted) imino, O, Se, SOn wherein n = 0, 1, 2], useful as cardiovascular agents, (no data) are prepd. A soln. of 0.022 mol H₂NNHC(:NH)NH₂.H₂CO₃ in MeOH-HCl (pH 2) was added to a soln. of 0.02 mol benzothiopyranone II in MeOH, kept overnight at room temp., and refluxed to give 68.1% I (Rm = 6-MeO, XA = SCHMeCH₂).

IT 115701-03-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as pharmaceutical)

RN 115701-03-6 CAPLUS

CN Hydrazinecarboximidamide, 2-(2,3-dihydro-3,3-diphenyl-1H-inden-1-ylidene)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L27 ANSWER 27 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1988:131263 CAPLUS

DN 108:131263

TI Aromatic bisanilines

IN Teramoto, Takeo; Usami, Takashi; Harada, Kazuaki; Inoue, Hiroharu

PA Nippon Steel Corp., Japan; Nippon Steel Chemical Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 5 pp.

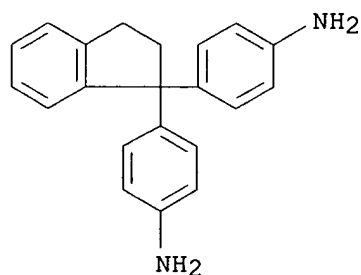
CODEN: JKXXAF

DT Patent

LA Japanese

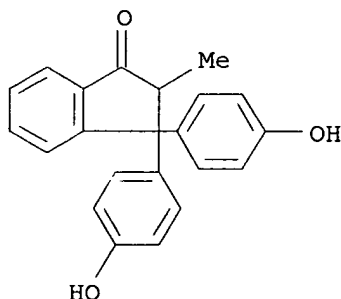
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62149650	A2	19870703	JP 1985-290834	19851225
PRAI	JP 1985-290834		19851225		
AB	Title compds. I (R1, R2 = Ph, R1R2 may be bonded to form Q1, Q2, Q3; X = H, halo, aliph. hydrocarbyl), useful as monomers for heat-resistant polyamides and polyimides, were prepd. by treating arom. ketones with anilines while removing generated H2O to improve yield and shorten reaction time. Thus, 37 g fluorenone was refluxed with 210 g PhNH2 in 80 mL C6H6 in the presence of 110 g PhNH2.HCl at 130.degree. under azeotropical removal of H2O for 3 h and recrystd. from PhMe to give 90% 9,9-bis(4-aminophenyl)fluorene (I; R1R2 = Q1, X = H).				
IT	113505-06-9P , 1,1-Bis(4-aminophenyl)indan RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as monomer for polyamides and polyimides)				
RN	113505-06-9 CAPLUS				
CN	Benzenamine, 4,4'-(2,3-dihydro-1H-inden-1-ylidene)bis- (9CI) (CA INDEX NAME)				

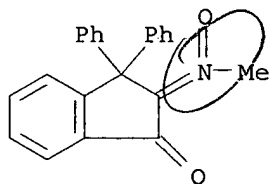


Same as # 14

L27 ANSWER 28 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1987:458774 CAPLUS
 DN 107:58774
 TI Indane-1,3-dione, phthalimidine and phthalide derivatives as alkylating agents
 AU Barili, Pier Luigi; Scartoni, Valerio
 CS Ist. Chim. Farm. Chim. Org., Univ. Pisa, Pisa, 56100, Italy
 SO Journal of Heterocyclic Chemistry (1985), 22(5), 1199-202
 CODEN: JHTCAD; ISSN: 0022-152X
 DT Journal
 LA English
 OS CASREACT 107:58774
 AB Title compds. I (X = NH, RR1 = CHPh, CBrPh, R = CH2Ph, R1 = OH; X = NMe, R = H, R1 = OH; X = NPh, RR1 = CHPh, CBrPh, R = CH2Ph, R1 = OH, OMe, NHPPh; X = NCH2Ph, RR1 = CH2, CHPh, R = H, R1 = OH; X = NCH2CH2Ph, R = CHPh, X = NCH2CH2OH, RR1 = CH2, R = H, R1 = OH; X = NCH2CO2H, RR1 = CHPh; X = O, RR1 = CHPh, R = OH, R1 = H, Me, Ph, CH2Ph) in acid media gave carbocations II (R1 = H, Me, Ph, CH2Ph) which gave electrophilic arom. substitution products III (R1 = H, Me, Ph, CH2Ph; R2 = H, OMe, R3 = H, OMe, R4 = H, OH, OMe) with phenol or anisole or veratrole.
 IT **104563-21-5P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 104563-21-5 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-3,3-bis(4-hydroxyphenyl)-2-methyl- (9CI) (CA INDEX NAME)

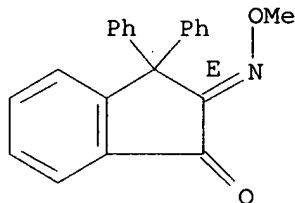


L27 ANSWER 29 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1986:571958 CAPLUS
 DN 105:171958
 TI Reaction of .alpha.-oximino ketones with diazomethane
 AU Prosyani, A. V.; Zorin, Ya. Z.; Mishchenko, A. I.; Negrimovskii, V. M.; Zolotoi, A. B.
 CS Khim. Tekhnol. Inst. im. Dzerzhinskogo, Dnepropetrovsk, USSR
 SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1985), (8), 1840-7
 CODEN: IASKA6; ISSN: 0002-3353
 DT Journal
 LA Russian
 OS CASREACT 105:171958
 AB E isomers of title ketones of fixed s-cis carbonyl configuration, e.g., I, II, underwent N-methylation with CH₂N₂; the Z isomers underwent O-methylation. Labile ketones, e.g., (E)-RCOCH:NOH (R = Ph, PhNH) underwent simultaneous N,O-alkylation. The type of alkylation of the first class of compds. was but little affected by increasing solvent polarity, which increased the amt. O-alkylation of the 2nd compd. class.
 IT **104676-32-6P 104676-35-9P**
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
 RN 104676-32-6 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-2-(methyloxidoimino)-3,3-diphenyl- (9CI) (CA INDEX NAME)



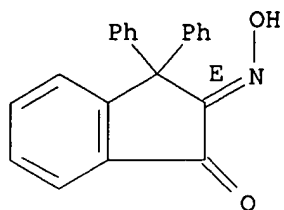
RN 104676-35-9 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl-, 2-(O-methyloxime), (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **82801-86-3 104676-33-7**
 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with diazomethane)
 RN 82801-86-3 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl-, 2-oxime, (E)- (9CI) (CA INDEX NAME)

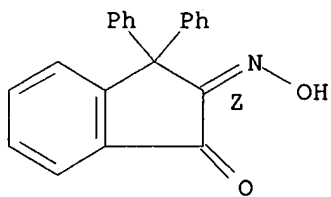
Double bond geometry as shown.



RN 104676-33-7 CAPLUS

CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl-, 2-oxime, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L27 ANSWER 30 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1986:207159 CAPLUS

DN 104:207159

TI Amidinohydrazones of Tetralin, chromone, thiochromone, and tetrahydroquinoline and their use in pharmaceuticals

IN Stegelmeier, Hartmut; Morich, Frank; Knorr, Andreas

PA Bayer A.-G., Fed. Rep. Ger.

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3416695	A1	19851107	DE 1984-3416695	19840505
	EP 163888	A1	19851211	EP 1985-104825	19850420
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	ES 542615	A1	19860516	ES 1985-542615	19850426
	JP 60239454	A2	19851128	JP 1985-92390	19850501
	DK 8501998	A	19851106	DK 1985-1998	19850502
	FI 8501736	A	19851106	FI 1985-1736	19850502
	ZA 8503328	A	19851224	ZA 1985-3328	19850503
	HU 38609	A2	19860630	HU 1985-1696	19850503
	AU 8542008	A1	19851107	AU 1985-42008	19850506

PRAI DE 1984-3416695 19840505

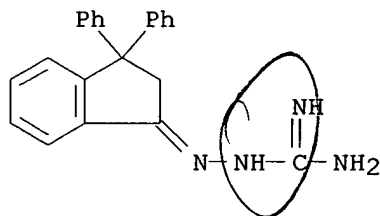
AB Amidinohydrazones I [R = H, C1-10 alkyl (un)substituted with C1-6 alkylamine, C1-10 alkoxy, alkylthio, -sulfinyl, cyano, OH, NO₂, C1-5 fluoroalkyl, etc.; X = (un)substituted CH₂ or NH, O, SOn (n = 0-2), Se; X1 = (un)substituted CH₂, CH₂CH₂, CH₂CH₂CH₂, or CH:CH, CO, C:NOH], useful as circulation influencing agents (no data), were prepd. by treating ketones II with H₂NNHC(:NH)NH₂ at 0-150.degree. in the presence of a diluent. Thus, 6-methoxy-1-tetralone and H₂NNHC(:NH)NH₂.H₂CO₃ in MeOH-HCl overnight at room temp. gave 65.4% III.

IT 102144-05-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as agent with effect on circulation)

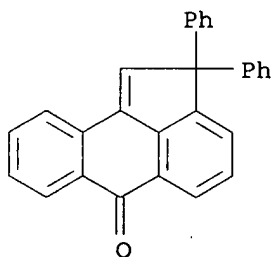
RN 102144-05-8 CAPLUS

CN Hydrazinecarboximidamide, 2-(2,3-dihydro-3,3-diphenyl-1H-inden-1-ylidene)-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

L27 ANSWER 31 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1985:184805 CAPLUS
 DN 102:184805
 TI Formation of 6(2H)-aceanthrylenones and their photochemical conversion into aceanthrylenes
 AU Becker, Hans Dieter; Elebring, Thomas
 CS Dep. Org. Chem., Chalmers Univ. Technol., Goeteborg, S-412 96, Swed.
 SO Journal of Organic Chemistry (1985), 50(8), 1319-22
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 OS CASREACT 102:184805
 AB Dispiro[anthracene-9(10H),1'-cyclopropane-2',9''(10''H)-anthracene]-10,10''-dione rearranged spontaneously in soln. to give 6-hydroxyspiro[aceanthrylene-2(1H),9'(10'H)-anthracen]-10'-one, conceivably in equil. with its keto tautomer I. Oxidn. of the rearranged product with Ag₂O or DDQ led to light-sensitive spiro[aceanthrylene-2(6H),9'(10'H)-anthracene]-6,10'-dione, which photoisomerized via 1,2-aryl migration; acetylation of the O-sensitive photoproduct gave the aceanthrylene deriv. II. Analogous isomerizations were brought about by irradiation of spiro[aceanthrylene-2(6H),9'-[9H]fluoren]-6-one and 2,2-diphenyl-6(2H)-aceanthrylenone.
 IT **76664-88-5**
 RL: PROC (Process)
 (photoisomerization of)
 RN 76664-88-5 CAPLUS
 CN 6(2H)-Aceanthrylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 32 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1985:140801 CAPLUS
 DN 102:140801
 TI Photosensitive material for electrophotography
 PA Canon K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59195246	A2	19841106	JP 1983-68362	19830420
PRAI	JP 1983-68362		19830420		

AB An electrophotog. photosensitive material consists of a layer contg. I, where R, R1 = substituted or unsubstituted alkyl, aralkyl, or heterocyclic ring; and A = 5 or 6 membered ring. Thus, an Al plate having an adhesive layer was coated with a compn. contg. II, and vinyl acetal polymer to form a charge-generation layer and then with a compn. contg. III, and poly-4,4'-dioxydiphenyl-2,2-propanecarbonate to form a charge-transport layer.

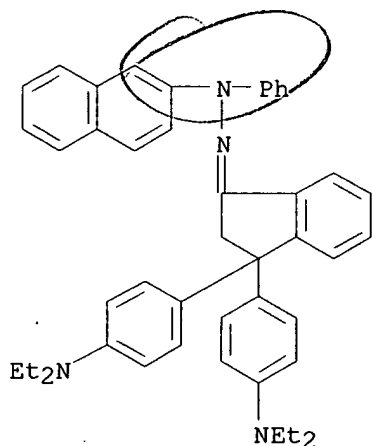
IT **95472-68-7 95472-71-2**

RL: USES (Uses)

(electrophotog. photoreceptor with charge-transport layer contg.)

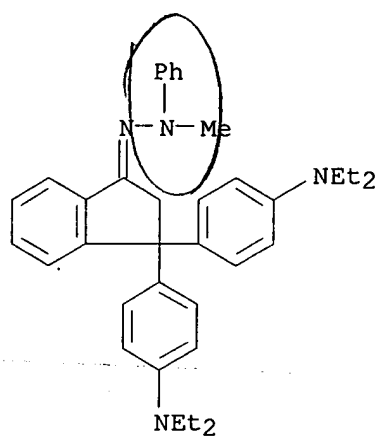
RN 95472-68-7 CAPLUS

CN 1H-Inden-1-one, 3,3-bis[4-(diethylamino)phenyl]-2,3-dihydro-,
 2-naphthalenylphenylhydrazone (9CI) (CA INDEX NAME)

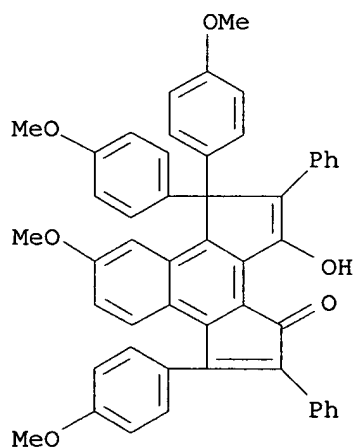


RN 95472-71-2 CAPLUS

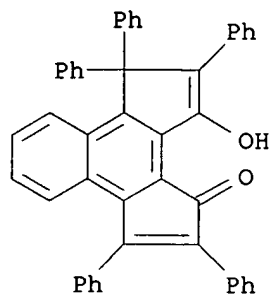
CN 1H-Inden-1-one, 3,3-bis[4-(diethylamino)phenyl]-2,3-dihydro-,
 methylphenylhydrazone (9CI) (CA INDEX NAME)



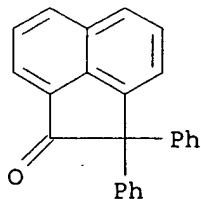
L27 ANSWER 33 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1984:120655 CAPLUS
 DN 100:120655
 TI Dehydration of 4-hydroxy-2,3,4-triphenylcyclopent-2-enone: revision of the structure of the dehydrodimer
 AU Atkinson, Robert S.
 CS Dep. Chem., Leicester Univ., Leicester, LE1 7RH, UK
 SO Journal of Chemical Research, Synopses (1983), (12), 300
 CODEN: JRPSDC; ISSN: 0308-2342
 DT Journal
 LA English
 OS CASREACT 100:120655
 AB The structure of the blue dehydrodimer of 4-hydroxy-2,3,4-triphenylcyclopent-2-enone (I) was reassigned as II (R = H) from a 400 MHz NMR study of the tetramethoxy analog II (R = OMe). The configuration of the colorless dimer of I was similarly assigned to be III.
 IT **89185-73-9P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 89185-73-9 CAPLUS
 CN Benz[e]-as-indacen-3(6H)-one, 4-hydroxy-8-methoxy-1,6,6-tris(4-methoxyphenyl)-2,5-diphenyl- (9CI) (CA INDEX NAME)



IT **89185-71-7**
 RL: PRP (Properties)
 (structure of)
 RN 89185-71-7 CAPLUS
 CN Benz[e]-as-indacen-3(6H)-one, 4-hydroxy-1,2,5,6,6-pentaphenyl- (9CI) (CA INDEX NAME)

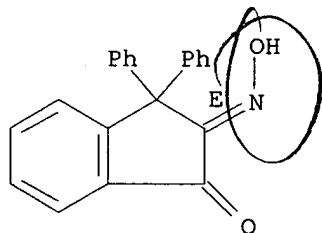


L27 ANSWER 34 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1983:521963 CAPLUS
 DN 99:121963
 TI Synthesis and chemistry of 1H-cyclobuta[de]naphthalenes,
 1-alkylidene-1H-cyclobuta[de]naphthalenes, and 1H-cyclobuta[de]naphthalen-
 1-one
 AU Card, P. J.; Friedli, F. E.; Shechter, H.
 CS Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA
 SO Journal of the American Chemical Society (1983), 105(19), 6104-14
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 OS CASREACT 99:121963
 AB Grignard and lithium reagents from 1-bromo-1H-cyclobuta[de]naphthalene (I,
 R = Br) are converted by protonic acids, Me₃SiCl, MeI, CO₂, AcCl, and
 ethylene oxide to the corresponding 1H-cyclobuta[de]naphthalene derivs.
 Displacements of I (R = Br) by various nucleophiles (aluminumhydrides,
 iodide, chloride, cyanide, azide, methoxide, Ph₃P and thiophenoxide,
 AgNO₃, AgOAc, Ag tosylate, Li cuprates) give 1-substituted
 1H-cyclobuta[de]naphthalenes. Reactions of I (R = Br) with piperidine or
 aniline, I (R = MeO) with NaOMe, and I (R = Br, AcO, H) with AgOAc-AcOH
 result in cleavage of the 4-membered ring moieties to yield naphthalene
 derivs. I (R = OH) also converts rapidly to 1-naphthaldehyde.
 1H-Cyclobuta[de]naphthalen-1-yl radicals, cations, and carbanions are
 generated readily; formation of these intermediates is resisted in part,
 however, by the strains in their cyclobuta[de]naphthylen-1-yl moieties.
 (1H-Cyclobuta[de]naphthalen-1-ylidene)triphenylphosphorane reacts with
 aldehydes and ketones to give 1-alkylidene-1H-cyclobuta[de]naphthalenes,
 e.g., II (R₁ = Me). The strained alkylidenes undergo normal directed
 ionic and free radical addns. of HBr. II (R₁ = Ph) is isomerized,
 however, to 1,2-diphenylacenaphthylene by acids. 3'-Methylspiro[1H-
 cyclobuta[de]naphthalene-1,2'-oxirane] rearranges similarly to I (R = Ac).
 At 430-550.degree. I (R = alkyl) and II (CR₁₂ = CH₂, CHMe, CHPh) covert to
 their corresponding 1-(1-alkenyl)naphthalenes and 1-(1-
 alkynyl)naphthalenes via 1,4-diradical intermediates.
 1H-Cyclobuta[de]naphthalen-1-one (III) is prepd. by ozonolysis of II (R₁ =
 Me) and by hydrolysis of 1-chloro-1-(thiophenoxy)-1H-
 cyclobuta[de]naphthalene. H₂O, MeOH, N nucleophiles, and Wittig reagents
 effect rapid ring opening of III.
 IT **85925-12-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 85925-12-8 CAPLUS
 CN 1(2H)-Acenaphthylene, 2,2-diphenyl- (9CI) (CA INDEX NAME)

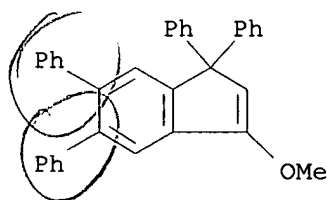


L27 ANSWER 35 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1982:502061 CAPLUS
DN 97:102061
TI 2-Hydroxyimino-3,3-diphenylindan-1-one, C₂₁H₁₅NO₂
AU Brueckner, S.; Malpezzi, L.
CS Ist. Chim., Politec. Milano, Milan, 20133, Italy
SO Crystal Structure Communications (1982), 11(2), 533-8
CODEN: CSCMCS; ISSN: 0302-1742
DT Journal
LA English
AB The title compd. is monoclinic, space group P2₁/c, with a 12.779(7), b 10.069(7), c 26.340(9) .ANG., and .beta. 103.9(1).degree.; Z = 4 (2 mol./Z) for dc = 1.26. The structure was solved by direct methods and refined by block-diagonal least squares to a final R = 0.046 and Rw = 0.053. At. coordinates, bond lengths and angles, and torsion angles are given. The 2 condensed rings are nearly coplanar. The bond lengths indicate some degree of .pi. delocalization.
IT **82801-86-3**
RL: PRP (Properties)
(structure of)
RN 82801-86-3 CAPLUS
CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl-, 2-oxime, (E)- (9CI) (CA INDEX NAME)

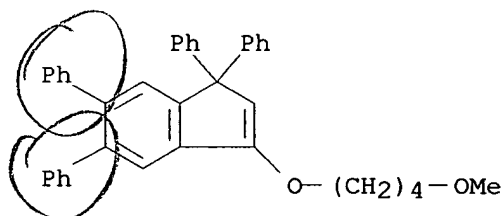
Double bond geometry as shown.



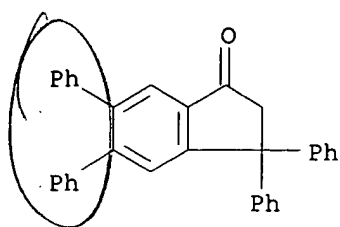
L27 ANSWER 36 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1982:142403 CAPLUS
 DN 96:142403
 TI Routes to 3aH-indenes. Deprotonation and methylation of some indenones bearing ring junction substituents
 AU Gilchrist, Thomas L.; Rees, Charles W.; Tuddenham, David
 CS Robert Robinson Lab., Univ. Liverpool, Liverpool, L69 3BX, UK
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1981), (12), 3221-4
 CODEN: JCPRB4; ISSN: 0300-922X
 DT Journal
 LA English
 AB The trienones I (R = Ph) and II were converted into the corresponding enolate anions by reaction with KH at <-10.degree.. FSO₃Me was added to each soln. and the transient 3aH-indenes III (R = R₁ = Ph, R₂ = OMe; R = Me, R₁ = OMe, R₂ = Ph) were detected and trapped by [8+2] cycloaddn. with 4-phenyltriazoledione. An analogous deprotonation of I (R = H) gave only 25% 2,3-dihydro-3-methyl-3-phenyl-1H-inden-1-one. The enolates and enol ethers of I rearranged via [1,5] shift of bridgehead Ph at or below room temp.
 IT **81280-27-5P 81280-28-6P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 81280-27-5 CAPLUS
 CN 1H-Indene, 3-methoxy-1,1,5,6-tetraphenyl- (9CI) (CA INDEX NAME)



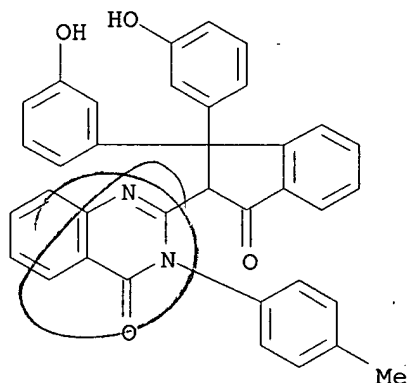
RN 81280-28-6 CAPLUS
 CN 1H-Indene, 3-(4-methoxybutoxy)-1,1,5,6-tetraphenyl- (9CI) (CA INDEX NAME)



IT **16643-46-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, by thermolysis of diphenylcyclopentadienone dimer)
 RN 16643-46-2 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-3,3,5,6-tetraphenyl- (9CI) (CA INDEX NAME)

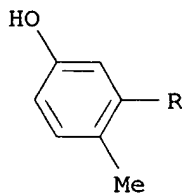


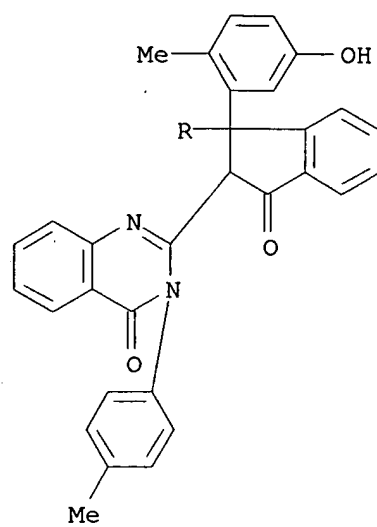
L27 ANSWER 37 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1982:84914 CAPLUS
 DN 96:84914
 TI The absorption spectra of some 4(3H)-quinazolinones
 AU Anwar, M.
 CS Fac. Sci., Tanta Univ., Tanta, Egypt
 SO Pakistan Journal of Scientific and Industrial Research (1981), 24(1), 8-13
 CODEN: PSIRAA; ISSN: 0030-9885
 DT Journal
 LA English
 AB The UV and IR spectra of benzoxazinone I and of various
 4(3H)-quinazolinones, e.g., II, III [R = HC:CHR1 [R1 = (un)substituted Ph,
 2-furyl], N:CHR1 (same R1)] were recorded. UV bands lying near 300 nm
 were attributed to intermol. charge-transfer phenomena.
 IT 80821-58-5 80821-59-6
 RL: PRP (Properties)
 (UV and IR spectra of)
 RN 80821-58-5 CAPLUS
 CN 4(3H)-Quinazolinone, 2-[2,3-dihydro-1,1-bis(3-hydroxyphenyl)-3-oxo-1H-
 inden-2-yl]-3-(4-methylphenyl)- (9CI) (CA INDEX NAME)



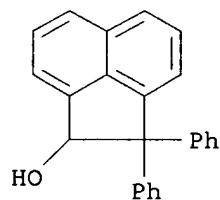
RN 80821-59-6 CAPLUS
 CN 4(3H)-Quinazolinone, 2-[2,3-dihydro-1,1-bis(5-hydroxy-2-methylphenyl)-3-
 oxo-1H-inden-2-yl]-3-(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

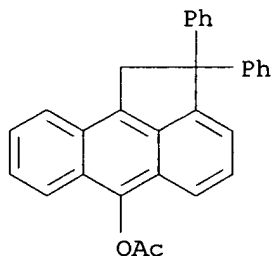




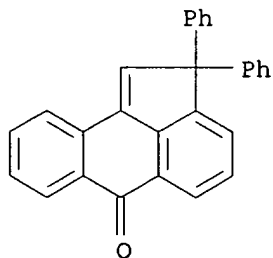
L27 ANSWER 38 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1981:455698 CAPLUS
DN 95:55698
TI The initial stage in the dehydrogenation of dihydrodiols
AU Hopkins, R. P.; Tothill, Colin; Callaghan, P.
CS Med. Sch., St. Thomas's Hosp. Med. Sch., London, SE1 7EH, UK
SO Biochemical Society Transactions (1981), 9(1), 72
CODEN: BCSTB5; ISSN: 0300-5127
DT Journal
LA English
AB Studies of the metab. by a rat liver microsomal dehydrogenase [9035-82-9] prep. of derivs. of cis-acenaphthalene-1,2-diol (I) [2963-86-2], in which various H atoms were replaced by other groups, indicated that the 2 H atoms removed from the I mol. were a hydroxy H and a paraffinic H atom, both of which were derived from the same C atom. Thus, the microsomal dehydrogenase acted as an alc. dehydrogenase.
IT **78324-67-1**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metab. of, by liver microsomes)
RN 78324-67-1 CAPLUS
CN 1-Acenaphthylenol, 1,2-dihydro-2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 39 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1981:139496 CAPLUS
 DN 94:139496
 TI Syntheses and reactions of spirocyclopropaneanthrones. Part 2.
 Rearrangements and cyclopropyl ring opening reactions of
 phenyl-substituted spirocyclopropaneanthrones and related compounds
 AU Hirakawa, Kiyochi; Nosaka, Toshikazu
 CS Dep. Chem., Shinshu Univ., Nagano, 386, Japan
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and
 Bio-Organic Chemistry (1972-1999) (1980), (12), 2835-41
 CODEN: JCPRB4; ISSN: 0300-922X
 DT Journal
 LA English
 AB The diphenylspirocyclopropaneanthrones I (R = Ph, R1 = H; R2 = Ph, R3 = H;
 R2 = H, R3 = Ph) rearranged thermally with ring expansion to the
 dihydroaceanthrones II (same R, R1-R3). I (R = Ph, R1 = H, R2R3 = bond),
 prep'd. by reaction of 10-diazoanthrone (III) with PhC.tplbond.CH,
 rearranged thermally to aceanthrone II (R = Ph, R1 = H, R2R3 = bond),
 whereas I (R = R1 = Ph, R2R3 = bond), prep'd. by reaction of III with
 tolan, was thermally unstable. III reacted with 9-methylenefluorene to
 give the rearranged product II (RR2 = C6H4COC6H4, R1 = R3 = H) directly.
 Spirocyclopropane- and spirocyclopropeneanthrones reacted under acidic
 conditions to give cyclopropyl or cyclopropenyl ring-opened products.
 IT **76664-87-4P 76664-88-5P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 76664-87-4 CAPLUS
 CN 6-Aceanthrylenol, 1,2-dihydro-2,2-diphenyl-, acetate (9CI) (CA INDEX
 NAME)



RN 76664-88-5 CAPLUS
 CN 6(2H)-Aceanthrylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 40 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1981:102538 CAPLUS

DN 94:102538

TI Sigmatropic rearrangements of 1,1-diarylindenes. Migratory aptitudes of aryl migration in the ground and electronically excited states

AU Manning, Carl; McClory, Michael R.; McCullough, John J.

CS Dep. Chem., McMaster Univ., Hamilton, ON, L8S 4M1, Can.

SO Journal of Organic Chemistry (1981), 46(5), 919-30

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

AB The photochem. and thermal rearrangements of title compds. I (R = H, Br, cyano, OMe) to 2,3-diarylindenes yielded the migratory aptitudes of RC₆H₄ vs. Ph. The excited-state reactions (direct and triplet-sensitized) are highly selective, migration of the substituted Ph group being favored for all 3 substituents. The thermal reactions, in contrast, are quite unselective, Ph migrating almost as readily as RC₆H₄ in all cases. Quantum yields for the rearrangement in the case of I (R = H, cyano) were 0.80 and 0.46, resp. (direct irradiation), and 0.43 and 0.53, resp. (sensitized reactions). Neither a bond-dissociation-energy approach nor a transition-state delocalization-energy approach led to a satisfactory interpretation of the thermal reactions. The excited-state migrations are consistent with charge-transfer stabilization of the transition state, which can be established from oxidation and reduction potentials by using Weller's equation.

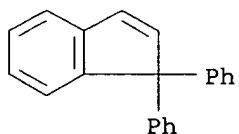
IT 18636-52-7 52033-61-1 52033-62-2

52033-63-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(photochem. and thermal isomerization of)

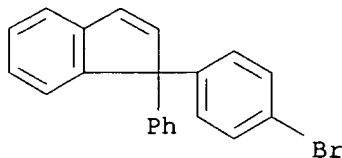
RN 18636-52-7 CAPLUS

CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



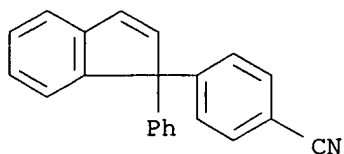
RN 52033-61-1 CAPLUS

CN 1H-Indene, 1-(4-bromophenyl)-1-phenyl- (9CI) (CA INDEX NAME)

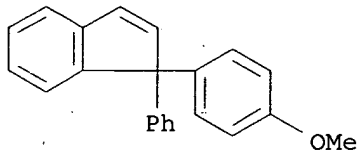


RN 52033-62-2 CAPLUS

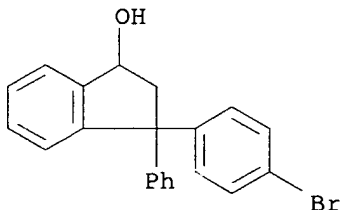
CN Benzonitrile, 4-(1-phenyl-1H-inden-1-yl)- (9CI) (CA INDEX NAME)



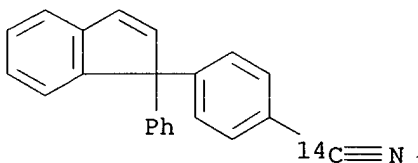
RN 52033-63-3 CAPLUS
 CN 1H-Indene, 1-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



IT **75948-91-3P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and dehydrogenation of)
 RN 75948-91-3 CAPLUS
 CN 1H-Inden-1-ol, 3-(4-bromophenyl)-2,3-dihydro-3-phenyl- (9CI) (CA INDEX NAME)

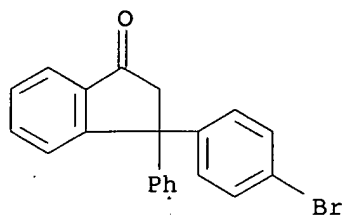


IT **75948-87-7P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 75948-87-7 CAPLUS
 CN Benzonitrile-cyano-14C, 4-(1-phenyl-1H-inden-1-yl)- (9CI) (CA INDEX NAME)

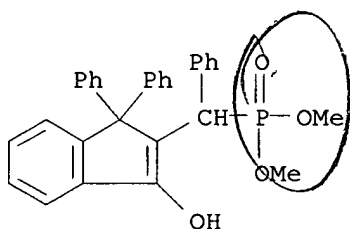


IT **75961-47-6**
 RL: PRP (Properties)
 (redn. and dehydration of)
 RN 75961-47-6 CAPLUS
 CN 1H-Inden-1-one, 3-(4-bromophenyl)-2,3-dihydro-3-phenyl- (9CI) (CA INDEX NAME)

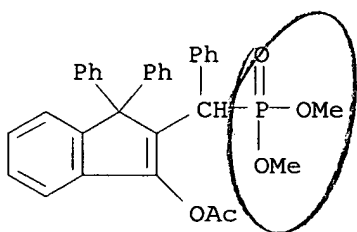
NAME)



L27 ANSWER 41 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1980:181292 CAPLUS
 DN 92:181292
 TI Reactions of some .alpha.-enones with trimethyl phosphite
 AU Arbuzov, B. A.; Tudrii, G. A.; Fuzhenkova, A. V.
 CS Khim. Inst. im. Butlerova, Kazan, USSR
 SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1980), (2), 382-6
 CODEN: IASKA6; ISSN: 0002-3353
 DT Journal
 LA Russian
 AB The reaction of I and II with (MeO)3P does not give cyclic phosphoranes. The formed phosphonium intermediates (e.g. III) in presence of AcOH or Ac2O undergoes nonclassical Arbuzov rearrangement to give phosphonates (e.g. IV).
 IT **56825-93-5P 73526-97-3P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 56825-93-5 CAPLUS
 CN Phosphonic acid, [(3-hydroxy-1,1-diphenyl-1H-inden-2-yl)phenylmethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

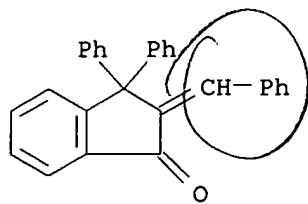


RN 73526-97-3 CAPLUS
 CN Phosphonic acid, [[3-(acetyloxy)-1,1-diphenyl-1H-inden-2-yl]phenylmethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

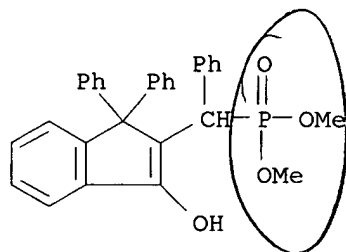


IT **56825-94-6**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with tri-Me phosphite)
 RN 56825-94-6 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-3,3-diphenyl-2-(phenylmethylene)- (9CI) (CA INDEX NAME)

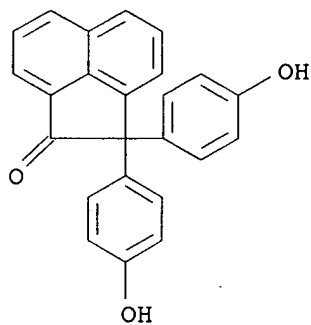
10/043,640



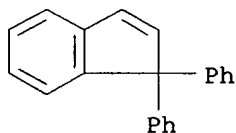
L27 ANSWER 42 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1979:71554 CAPLUS
DN 90:71554
TI Acid-base properties of enol forms of some derivatives of phosphonic acids
AU Timofeeva, O. Yu.; Fuzhenkova, A. V.; Sorokina, T. D.; Moiseeva, G. K.
CS Kazan. Gos. Univ., Kazan, USSR
SO Deposited Doc. (1976), VINITI 2722-76, 10 pp. Avail.: VINITI
DT Report
LA Russian
AB The 1st acid dissocn. consts. of I, II, III, and IV (R = H, Cl, NO₂, OMe) varied from 9.05 .times. 10⁻⁵ to 6.26 .times. 10⁻⁴; the 2nd dissocn. consts. varied from 1.30 .times. 10⁻⁷ to 1.75 .times. 10⁻⁵. The dissocn. const. of V was 3.50 .times. 10⁻¹⁰.
IT **56825-93-5**
RL: PRP (Properties)
(ionization consts. of)
RN 56825-93-5 CAPLUS
CN Phosphonic acid, [(3-hydroxy-1,1-diphenyl-1H-inden-2-yl)phenylmethyl]-, dimethyl ester (9CI) (CA INDEX NAME)



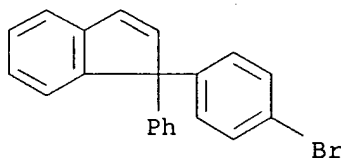
L27 ANSWER 43 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1978:529169 CAPLUS
 DN 89:129169
 TI Preparation of cardo bisphenols and some of their derivatives
 AU Salazkin, S. N.; Korshak, V. V.; Vinogradova, S. V.; Beridze, L. A.;
 Pankratov, V. A.
 CS Inst. Elementoorg. Soedin., Moscow, USSR
 SO Deposited Doc. (1976), VINITI 2833-76, 26 pp. Avail.: VINITI
 DT Report
 LA Russian
 AB Fluorenone, anthraquinone, acenaphthenequinone and 4,6-
 dibenzoylisophthalic and 2,5-dibenzoylterephthalic acids condensed with
 PhOH to give Z(C₆H₄OH-p)₂ (Z = 9-fluorenylidene, 10-oxo-8-anthrylidene,
 2-oxo-1-acenaphthenylidene), I and II, resp. Fluorenone also condensed
 with resorcinol to give bisphenol III. Phenophthalein reacted with RNH₂
 (R = H, Et, HOCH₂CH₂, allyl, Ph) to give the corresponding phthalimidine
 IV. IV (R = CH₂CH₂OH) reacted with SOCl₂ to give IV (R = CH₂CH₂Cl) and V.
 These products were converted to their diacetates and di- and
 tribenzoates.
 IT **23916-52-1P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 23916-52-1 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-bis(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L27 ANSWER 44 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1978:5907 CAPLUS
 DN 88:5907
 TI Identification and kinetics of isoindenes. Nuclear magnetic resonance, trapping, and flash photolysis studies
 AU Kamal de Fonseca, K.; Manning, Carl; McCullough, John J.; Yarwood, A. John
 CS Dep. Chem., McMaster Univ., Hamilton, ON, Can.
 SO Journal of the American Chemical Society (1977), 99(25), 8257-61
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB Transients absorbing in the 400-550-nm range in the flash photolysis of 1,1-diaryllindenes are isoindenes. Irradn. of 1,1,3-triphenylindene at 254 nm in cyclopentane at -70.degree. gives 1,2,3-triphenylisoindene, identified by reaction with 4-phenyl-1,2,4-triazoline-3,5-dione to give the Diels-Alder adduct of the azo compd. and 1,2,3-triphenylisoindene, and NMR. The kinetics of the 1,5 hydrogen shift by which isoindenes rearrange to stable indenes were studied by flash photolysis; the transient decay was first order. Kinetic isotope effects of KH/KD = 3.7 and 6.46 for the decay of 1,2,3-triphenylisoindene and 1,2-diphenylisoindene (2-H and 2-D), resp., show that the H shift is rate detg. The 1,5-hydrogen shift in 1,2-diphenylisoindene has $E = 13.1$ kcal/mol and $\Delta S^\ddagger = -8.9$ eu, and in 1,2,3-triphenylisoindene has $E_a = 14.4$ kcal/mol and $\Delta S^\ddagger = -19.7$ eu. The ground-state energy of isoindene relative to indene is 20 kcal/mol.
 IT 18636-52-7 52033-61-1 52033-62-2
 52033-63-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photolysis of, isoindene from)
 RN 18636-52-7 CAPLUS
 CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)

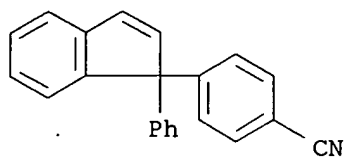


RN 52033-61-1 CAPLUS
 CN 1H-Indene, 1-(4-bromophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



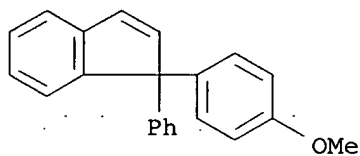
RN 52033-62-2 CAPLUS
 CN Benzonitrile, 4-(1-phenyl-1H-inden-1-yl)- (9CI) (CA INDEX NAME)

Same as # 40

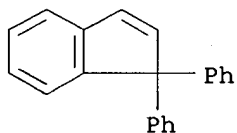


RN 52033-63-3 CAPLUS

CN 1H-Indene, 1-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

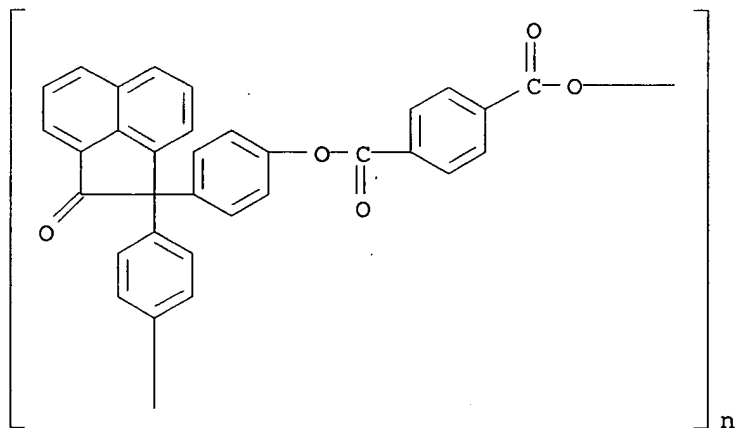


L27 ANSWER 45 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1978:5879 CAPLUS
 DN 88:5879
 TI Substituent effects on a sigmatropic reaction. Rearrangement of some
 3-substituted 1,1-diphenylindenes
 AU Pettit, William A.; Wilson, Joseph W.
 CS Dep. Chem., Univ. Kentucky, Lexington, KY, USA
 SO Journal of the American Chemical Society (1977), 99(19), 6372-9
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB The products of the irradiation of a series of 3-substituted
 1,1-diphenylindenes (I; R = H, CH₃, COCH₃, CO₂CH₃, CN) in benzene are
 either 3-substituted 1,2-diphenylindenes II (R = COCH₃, CO₂CH₃, and CN) or
 1-substituted 2,3-diphenylindenes III (R = H and CH₃). The product-deter-
 mining step is the thermal sigmatropic migration of a H atom on the middle carbon
 of an isoindene intermediate, IV to either neighboring C. The dependence
 of the direction of the H migration on the nature of the substituent is
 correlated with the substituent-dependent symmetry of the highest occupied
 MO of a model for the transition state. In methanol-benzene the irradiation
 of acetyl- and carbomethoxy-substituted I produced isomer III, the isomer
 not formed in benzene. In benzene-methanol-O-d the irradiation of
 3-acetyl-1,1-diphenylindene yielded III that contained 10% D. An anionic
 intermediate was postulated to account for the results in methanol. The
 thermal photochemistry, and base-catalyzed interconversions of II and III were
 also examined.
 IT 18636-52-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photochem. isomerization of, mechanism of)
 RN 18636-52-7 CAPLUS
 CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



Same as #40

L27 ANSWER 46 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1977:171982 CAPLUS
 DN 86:171982
 TI Study of the effect of the chemical structure and crystallinity of polyarylates on their properties. Control of the crystallinity of polyarylates
 AU Salazkin, S. N.; Korshak, V. V.; Vinogradova, S. V.; Beridze, L. A.
 CS Inst. Elementoorg. Soedin., Moscow, USSR
 SO Deposited Doc. (1975), VINITI 698-75, 50 pp. Avail.: BLLD
 DT Report
 LA Russian
 AB The title polyesters (20) were prepd. by condensing different bisphenols (bisphenol A, phenolphthalein, etc.) with arom. dicarboxylic acid dichlorides, and were used for investigation of the effect of structure on crystn., heat resistance, and soly. The polyesters, regardless of the size of the cardo groups, were capable of crystn. Crystn. was favored by the presence of sym. cardo groups and, in case of asym. cardo groups, by H bonds. Crystallinity of the polyesters was controlled by suitable treatment either of the prepd. polymers (pptn., treatment with solvents, etc.) or during the synthesis. Highest degree of crystallinity of the most rigid polyesters was achieved by appropriate selection of the conditions of the synthesis. Among amorphous polyesters, the cardo ones had highest heat resistance.
 IT **25949-48-8 56315-65-2**
 RL: USES (Uses)
 (crystn., heat resistance and soly. of)
 RN 25949-48-8 CAPLUS
 CN Poly[oxy carbonyl-1,4-phenylenecarboxyloxy-1,4-phenylene(2-oxo-1(2H)-acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

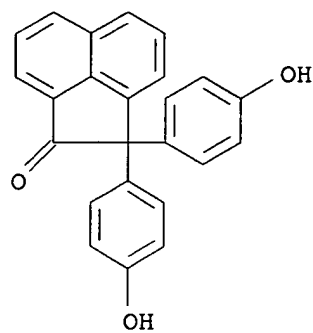


RN 56315-65-2 CAPLUS
 CN 1,4-Benzenedicarbonyl dichloride, polymer with 2,2-bis(4-hydroxyphenyl)-1(2H)-acenaphthylenone (9CI) (CA INDEX NAME)

CM 1

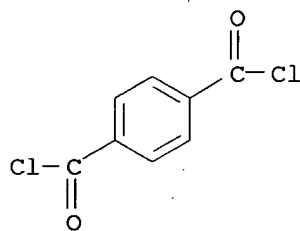
CRN 23916-52-1
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10/043,640

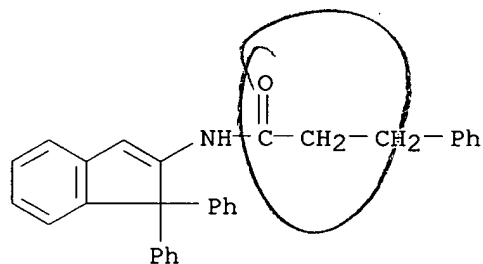


CM 2

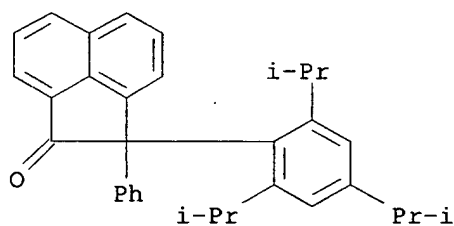
CRN 100-20-9
CMF C8 H4 Cl2 O2



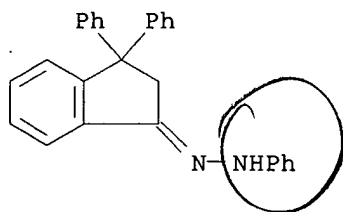
L27 ANSWER 47 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1977:89664 CAPLUS
 DN 86:89664
 TI Synthesis and reactions of 4-arylidene-2-.beta.-phenethyl-2-oxazolin-5-ones
 AU Harhash, Abdel H.; Elnagdi, Mohamed H.; Elbanani, Afaf A. A.
 CS Fac. Sci., Cairo Univ., Giza, Egypt
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1976), 14B(8), 567-70
 CODEN: IJSBDB; ISSN: 0376-4699
 DT Journal
 LA English
 AB Ring opening of the arylideneoxazolinones I (R = H, o-, p-MeO) in the presence of appropriate Grignard reagents, NH₃, or amines gave RC₆H₄CH:CR₁NHCOCH₂CH₂Ph (II, R₁ = CR₂OH, R₂ = Ph, C₆H₄OMe; R₁ = CONH₂; R₁ = CONHR₃, R₃ = Ph, CH₂Ph, p-tolyl, resp.). II (R₁ = CPh₂OH) underwent cyclization to the oxazoline III (R = H) or indene IV depending on reaction conditions. The reactions of I with appropriate arom. thiols gave RC₆H₄CH(SR₄)CH(COSR₄)NHCOCH₂CH₂Ph (R₄ = Ph, p-tolyl). Thus, I exist as 5(4H)-oxazolinones rather than the 5(2H) tautomers.
 IT **61870-45-9P**
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
 RN 61870-45-9 CAPLUS
 CN Benzenepropanamide, N-(1,1-diphenyl-1H-inden-2-yl)- (9CI) (CA INDEX NAME)



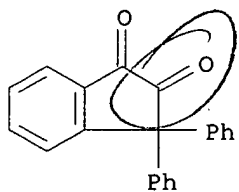
L27 ANSWER 48 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1976:576649 CAPLUS
 DN 85:176649
 TI Sterically stabilized enols: a study employing the internal rotational barriers of the destabilized ketones
 AU Miller, Arnold R.
 CS Roger Adams Lab., Univ. Illinois, Urbana, IL, USA
 SO Journal of Organic Chemistry (1976), 41(22), 3599-3602
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB Equil. consts. tautomer enols (I; R = Me₂CH, Me) formed from the resp. sterically destabilized ketones (II; R as above) were measured in several solvents. The variation of the internal rotational barrier heights as a function of the rotor's geminal substituent allows an estimate of relative ketone ground-state strain, the relaxation of which contributes the primary source of enol stability. For II (R = Me) in trichlorobenzene soln., the acidity independence of the aryl site-exchange barrier and the free-energy difference between tautomers allow a detn. of the lower limit of the enol's ketonization barrier as $\Delta G^\ddagger > 19$ kcal/mole. I (R = Me₂CH), tautomeric to the even more rotationally restricted ketone, II (R = Me₂CH), was isolated and characterized.
 IT **59906-95-5**
 RL: PRP (Properties)
 (rotational barrier in)
 RN 59906-95-5 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2-phenyl-2-[2,4,6-tris(1-methylethyl)phenyl]-
 (9CI) (CA INDEX NAME)



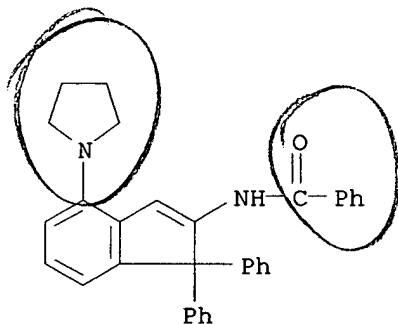
L27 ANSWER 49 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1976:523709 CAPLUS
DN 85:123709
TI Studies in nonpyridinoid azaaromatic systems. V. The synthesis and the antiaromatic character of dibenz[b,f,1]azapentalenes
AU Eisch, John J.; Abraham, Tonson
CS Dep. Chem., State Univ. New York, Binghamton, NY, USA
SO Tetrahedron Letters (1976), (20), 1647-50
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
AB The dibenzazapentalene I was prepd. by 2 methods; DDQ dehydrogenation of II (R = R2 = H, R1 = Ph) or the addn. of PhLi to ketone II (RR1 = O, R2 = H) and subsequent dehydration. Treatment of I with PhLi gave 66% of a 1:1 mixt. of II (R = H, R1 = R2 = Ph) and III. This phenylation is evidence for the destabilizing effect of antiaromaticity on the expected polar resonance structures of I.
IT **60432-62-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(Fischer indole reaction of)
RN 60432-62-4 CAPLUS
CN 1H-Inden-1-one, 2,3-dihydro-3,3-diphenyl-, phenylhydrazone (9CI) (CA INDEX NAME)



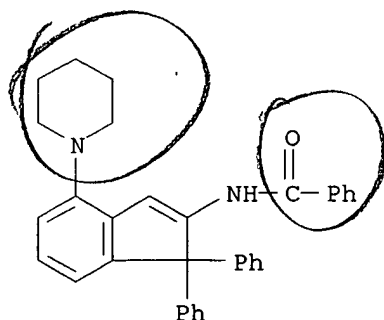
L27 ANSWER 50 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1976:135434 CAPLUS
 DN 84:135434
 TI Investigations on diazo compounds and azides, XXVII.-Addition of
 phosphoryldiazoalkanes to cyclic .alpha.-dicarbonyl compounds and ring
 expansion of the adducts (carbenium ion reactions)
 AU Disteldorf, Walter; Regitz, Manfred
 CS Fachber. Chem., Univ. Kaiserslautern, Kaiserslautern, Fed. Rep. Ger.
 SO Justus Liebig's Annalen der Chemie (1976), (2), 225-40
 CODEN: JLACBF; ISSN: 0075-4617
 DT Journal
 LA German
 AB Adducts I-III (R = Ph, OMe; X = CMe₂, CPh₂, NH, NMe, NOH, NOAc, NAc, O)
 were prepd. by treating .alpha.-diketones with N₂CHP(O)R₂. I-III
 underwent ring enlargement with HCl via carbonium ions to give IV-VI. IV
 (X = NAc) were obtained by thermal decompn. of I, because acid treatment
 gave IV (X = NH). N₂CHP(O)Ph₂ dimerized in KOH to VII.
 IT 7312-39-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with phosphoryldiazomethanes)
 RN 7312-39-2 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



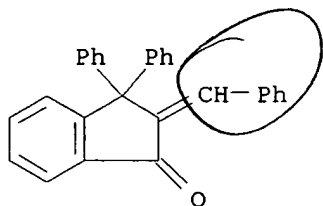
L27 ANSWER 51 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:593148 CAPLUS
 DN 83:193148
 TI Preparation and reactions of [dialkylamino]aryl]methylene-substituted
 azlactones (oxazol-5-ones)
 AU Niewiadomski, Krzysztof B.; Suschitzky, Hans
 CS Ramage Lab., Univ. Salford, Salford, UK
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and
 Bio-Organic Chemistry (1972-1999) (1975), (17), 1679-82
 CODEN: JCPRB4; ISSN: 0300-922X
 DT Journal
 LA English
 AB O-(dialkylamino)benzaldehydes, prepd. from o-FC₆H₄CHO and morpholine,
 pyrrolidine, piperidine, and dihydroazepine in hot THF, with BzNHCH₂CO₂H
 gave the azlactones I [X = O, (CH₂)_n, n = 0-2; R = H, resp.]. I with
 EtOH-NaOH, MeOH-NaOAc, N₂H₄, p-EtO₂CC₆H₄NH₂ gave the amides II (R = CO₂H,
 CO₂Me, CONHNH₂, CONHC₆H₄CO₂Et-p, resp.), and with PhMgBr gave carbinols II
 [R = CPh₂OH, X = (CH₂)_n] which in HCl cyclized to indenenes III (n = 0-2).
 The azlactones I (R = NO₂) prepd. from 2,4-Cl(O₂N)C₆H₄CHO, reacted
 similarly.
 IT **58029-05-3P 58029-06-4P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 58029-05-3 CAPLUS
 CN Benzamide, N-[1,1-diphenyl-4-(1-pyrrolidinyl)-1H-inden-2-yl]- (9CI) (CA
 INDEX NAME)



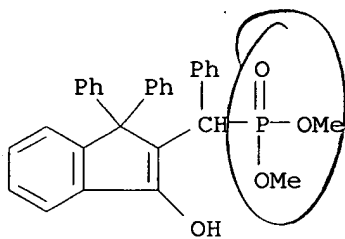
RN 58029-06-4 CAPLUS
 CN Benzamide, N-[1,1-diphenyl-4-(1-piperidinyl)-1H-inden-2-yl]- (9CI) (CA
 INDEX NAME)



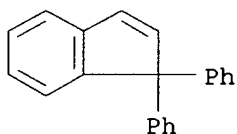
L27 ANSWER 52 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:564297 CAPLUS
 DN 83:164297
 TI Reaction of dimethyl phosphite with .alpha.,.beta.-unsaturated ketones
 AU Arbuzov, B. A.; Fuzhenkova, A. V.; Tudrii, G. A.; Zoroastrova, V. M.
 CS Khim. Inst. im. Butlerova, Kazan, USSR
 SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1975), (6), 1391-7
 CODEN: IASKA6; ISSN: 0002-3353
 DT Journal
 LA Russian
 AB Nine organophosphonates (e.g. I) were prepd. by addn. of (MeO)₂POH to .alpha.,.beta.-unsat. ketones (e.g. furfuralacetone) contg. Et₂NH or MeONa.
 IT **56825-94-6**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (addn. reaction of, with dimethyl phosphite)
 RN 56825-94-6 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-3,3-diphenyl-2-(phenylmethylene)- (9CI) (CA INDEX NAME)



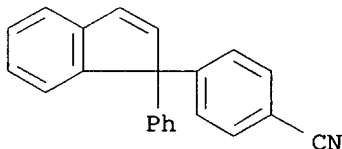
IT **56825-93-5P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 56825-93-5 CAPLUS
 CN Phosphonic acid, [(3-hydroxy-1,1-diphenyl-1H-inden-2-yl)phenylmethyl]-, dimethyl ester (9CI) (CA INDEX NAME)



L27 ANSWER 53 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:546787 CAPLUS
 DN 83:146787
 TI Sigmatropic rearrangements of 1,1-diarylindenes. Direct observation and lifetimes of isoindenes by flash photolysis
 AU McCullough, J. J.; Yarwood, A. J.
 CS Chem. Dep., McMaster Univ., Hamilton, ON, Can.
 SO Journal of the Chemical Society, Chemical Communications (1975), (12), 485-6
 CODEN: JCCCAT; ISSN: 0022-4936
 DT Journal
 LA English
 AB The 1,1-diarylindenes I (R = H, Ph, R1 = Ph; R = H, R1 = p-CNC6H4) underwent rearrangement on flash photolysis to give II via the corresponding transient arylisoindenes III. The first order decay rates of the transients III were measured.
 IT **18636-52-7 52033-62-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (sigmatropic rearrangement of, in flash photolysis, mechanism of)
 RN 18636-52-7 CAPLUS
 CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)

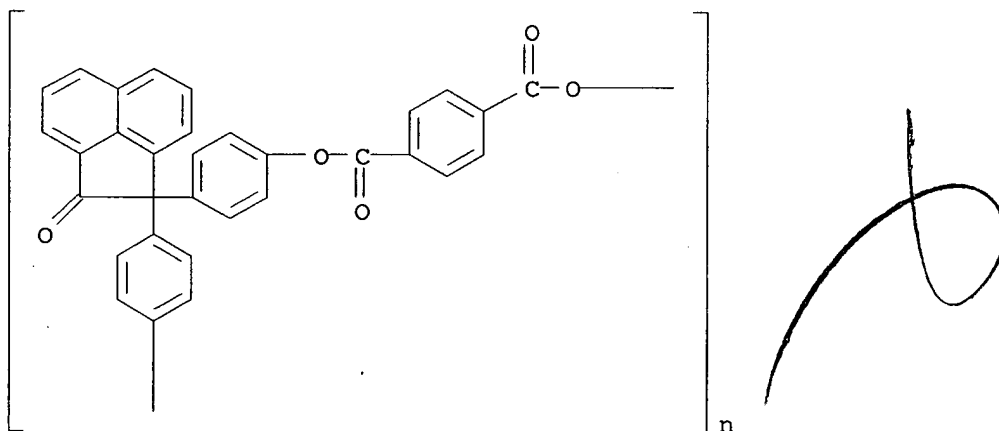


RN 52033-62-2 CAPLUS
 CN Benzonitrile, 4-(1-phenyl-1H-inden-1-yl)- (9CI) (CA INDEX NAME)

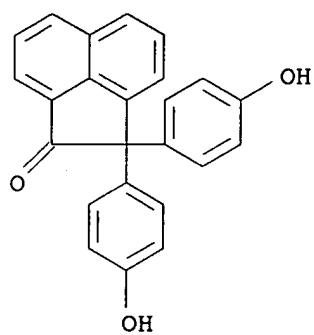


Same as #40

L27 ANSWER 54 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:498082 CAPLUS
 DN 83:98082
 TI Effect of the chemical structure of cardo groups on the physical properties of cardo polyarylates
 AU Papava, G. Sh.; Beridze, L. A.; Maisuradze, N. A.; Tsiskarishvili, P. D.
 CS USSR
 SO Sint. Svoistva Nek. Nov. Polim. Mater. (1974), 12-18 Publisher: "Metsniereba", Tiflis, USSR.
 CODEN: 30UJA2
 DT Conference
 LA Russian
 AB Polyesters I (Z = II-X) were prepd. by condensation of terephthaloyl chloride with the corresponding bisphenols in .alpha.-chloronaphthalene at 220.degree., and the effect of the cardo groups (II-X) on their crystallinity, thermal deformation, heat resistance, and soly. was established. Tendency toward crystn. was obsd. in I contg. sym. cardo groups (V, VI, X, and to a lesser extent in IV) and it was esp. strong in 9,9-bis(4-hydroxyphenyl)-10-anthrone-terephthaloyl chloride copolymer (I, Z = V) [29008-09-1]. I contg. II, III, VIII, and IX were amorphous. Crystallinity of I increased their thermal deformation stability but heat resistance (temp. of incipient and most intensive thermal decompn.) of I was virtually independent of the nature of the cardo group. Amorphous I were sol. in most of solvents and soly. of cryst. I was facilitated by the presence of polar groups (i.e., V).
 IT 25949-48-8P 56315-65-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and physical properties of)
 RN 25949-48-8 CAPLUS
 CN Poly[oxy carbonyl-1,4-phenylenecarbonyloxy-1,4-phenylene(2-oxo-1(2H)-acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



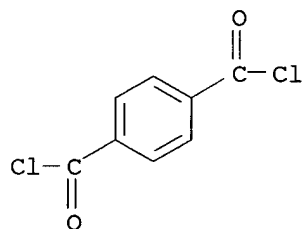
RN 56315-65-2 CAPLUS
 CN 1,4-Benzenedicarbonyl dichloride, polymer with 2,2-bis(4-hydroxyphenyl)-1(2H)-acenaphthylenone (9CI) (CA INDEX NAME)
 CM 1
 CRN 23916-52-1
 CMF C24 H16 O3



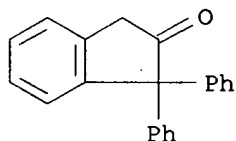
CM 2

CRN 100-20-9

CMF C8 H4 Cl2 O2

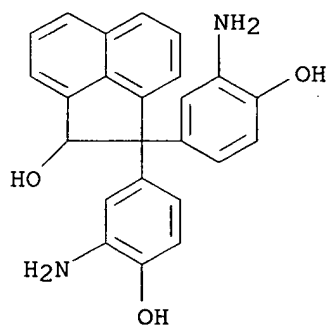


L27 ANSWER 55 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:478121 CAPLUS
 DN 83:78121
 TI Photochemical transformations of small ring heterocyclic systems. LX.
 Photochemical ring-opening reactions of substituted chromenes and
 isochromenes
 AU Padwa, Albert; Au, Andrew; Lee, George A.; Owens, William
 CS Dep. Chem., State Univ. New York, Buffalo, NY, USA
 SO Journal of Organic Chemistry (1975), 40(8), 1142-9
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB The photochem. reactions of chromenes (I; R = Me, Ph, H; R1 = H, Ph; R2 =
 H, Ph), isochromenes (II; R3 = Ph, Me, H), and 4-phenylisothiochromene
 (III) in the presence of MeOH were studied. I, II, and III underwent an
 initial photochem. ring opening to produce o-quinoidal intermediates (IV,
 R, R1, R2 same as above; V, R3 same as above; VI), resp. In I, the
 primary mode of reaction was 1,4- and 1,6-addn. of MeOH across the C-C
 double bonds of IV, while in II, indene epoxides (VII; R3 same as above)
 were formed from V. VI underwent a [4+2] intramol. photocycloaddn. to
 give episulfide (VIII) which lost S on further irradiation.
 IT **54193-73-6P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 54193-73-6 CAPLUS
 CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)

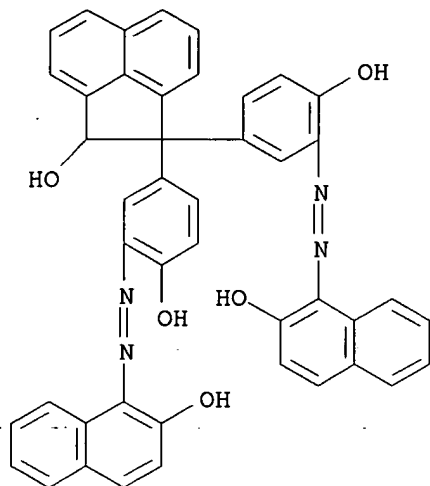


Same as #25

L27 ANSWER 56 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:412143 CAPLUS
 DN 83:12143
 TI Synthesis of bis(3'-amino-4'-hydroxyphenyl)acenaphthenol. Bis-azo dyes
 AU Lixandru, Tatiana; Pastravanu, Mariana; Dumitriu, Maria
 CS Politech. Inst., Iasi, Rom.
 SO Buletinul Institutului Politehnic din Iasi, Sectia 2: Chimie (1973),
 19(3-4), 127-31
 CODEN: BICMCF; ISSN: 0373-3246
 DT Journal
 LA English
 AB Redn. of 2,2-bis(3'-nitro-4'-hydroxyphenyl)acenaphthenone [
 55252-32-9] with Zn-HCl in EtOH gave 2,2-bis(3'-amino-4'-
 hydroxyphenyl)-1-acenaphthenol (I) [55252-33-0], which was
 tetrazotized and coupled with 2-naphthol [135-19-3], naphthionic acid
 [84-86-6], gamma acid [90-51-7], H acid [90-20-0], Chicago acid [82-47-3],
 and N,N'-bis(5-hydroxy-7-sulfo-2-naphthyl)urea [134-47-4] to give disazo
 dyes for cotton, silk, wool, and polyamide fibers.
 IT 55252-33-0
 RL: USES (Uses)
 (coupling of tetrazotized, with naphthalene derivs.)
 RN 55252-33-0 CAPLUS
 CN 1-Acenaphthylenol, 2,2-bis(3-amino-4-hydroxyphenyl)-1,2-dihydro- (9CI)
 (CA INDEX NAME)

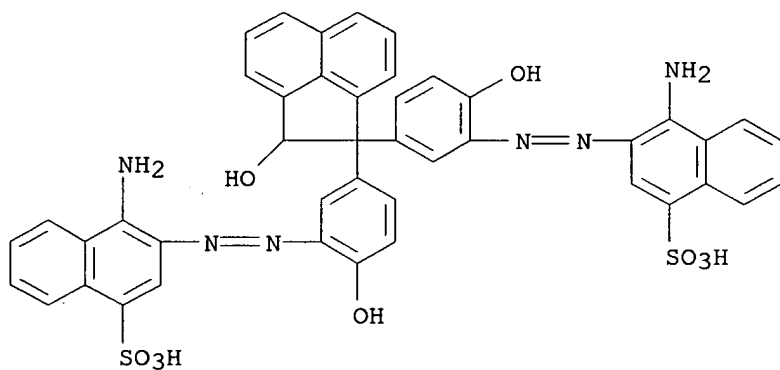


IT 55252-26-1P 55252-27-2P 55252-28-3P
 55252-29-4P 55252-30-7P 55252-31-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, dye for natural and synthetic fibers)
 RN 55252-26-1 CAPLUS
 CN 1-Acenaphthylenol, 1,2-dihydro-2,2-bis[4-hydroxy-3-[(2-hydroxy-1-
 naphthalenyl)azo]phenyl]- (9CI) (CA INDEX NAME)



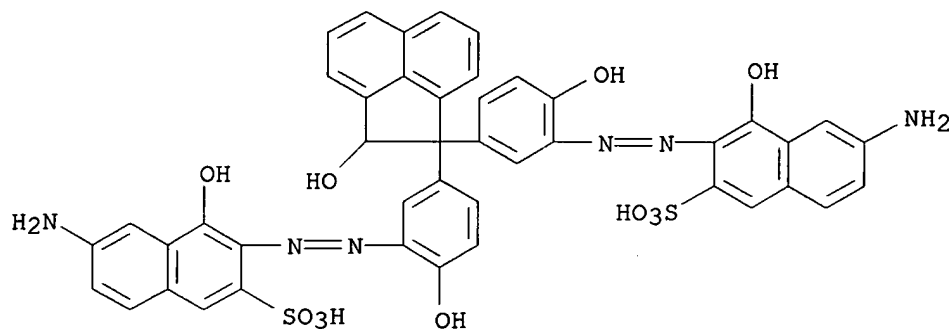
RN 55252-27-2 CAPLUS

CN 1-Naphthalenesulfonic acid, 3,3'-[(2-hydroxy-1(2H)-acenaphthylenylidene)bis[(6-hydroxy-3,1-phenylene)azo]]bis[4-amino- (9CI) (CA INDEX NAME)



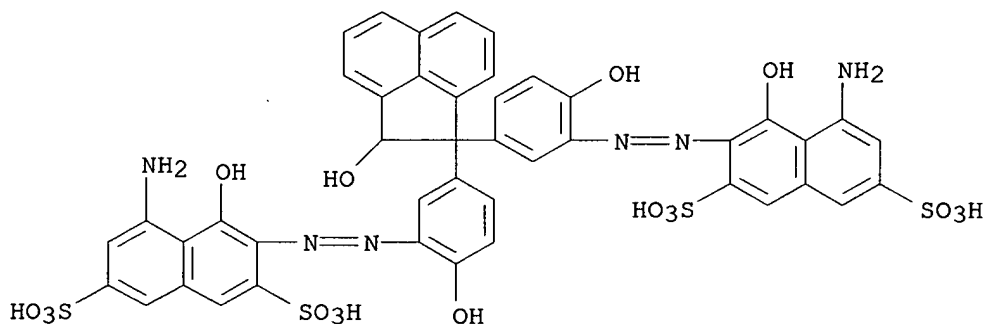
RN 55252-28-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 3,3'-[(2-hydroxy-1(2H)-acenaphthylenylidene)bis[(6-hydroxy-3,1-phenylene)azo]]bis[6-amino-4-hydroxy- (9CI) (CA INDEX NAME)



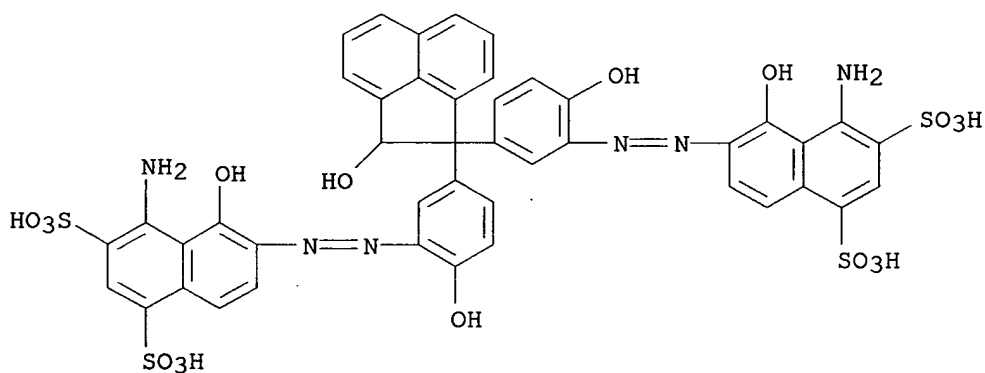
RN 55252-29-4 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3,3'-[(2-hydroxy-1(2H)-acenaphthylidene)bis[(6-hydroxy-3,1-phenylene)azo]bis[5-amino-4-hydroxy- (9CI) (CA INDEX NAME)



RN 55252-30-7 CAPLUS

CN 1,3-Naphthalenedisulfonic acid, 6,6'-[(2-hydroxy-1(2H)-acenaphthylidene)bis[(6-hydroxy-3,1-phenylene)azo]]bis[4-amino-5-hydroxy- (9CI) (CA INDEX NAME)

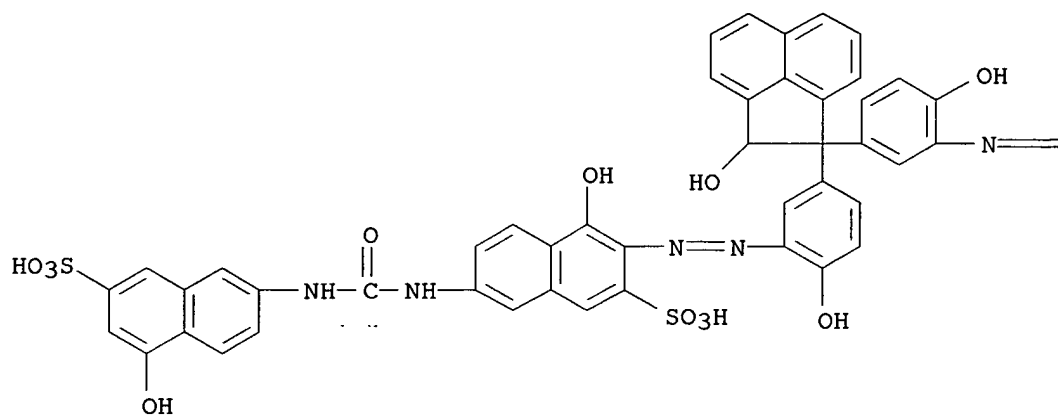


RN 55252-31-8 CAPLUS

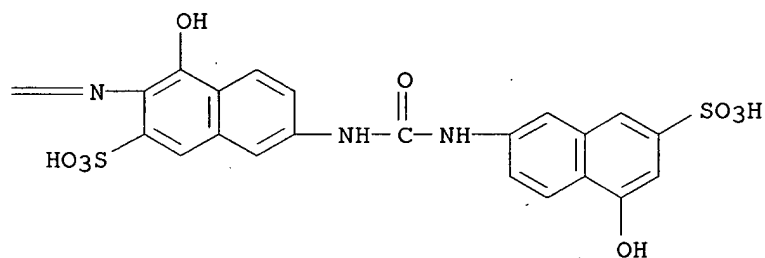
CN 2-Naphthalenesulfonic acid, 3,3'-[(2-hydroxy-1(2H)-acenaphthylidene)bis[(6-hydroxy-3,1-phenylene)azo]]bis[4-hydroxy-7-[[[(5-hydroxy-7-sulfo-2-naphthalenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

INDEX NAME)

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PAGE 1-B

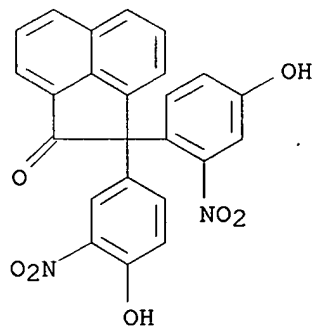


IT 55252-32-9

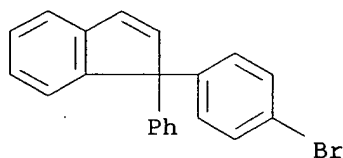
RL: RCT (Reactant); RACT (Reactant or reagent)
(redn. of)

RN 55252-32-9 CAPLUS

CN 1(2H)-Acenaphthylenone, 2,2-bis(4-hydroxy-3-nitrophenyl)- (9CI) (CA INDEX NAME)

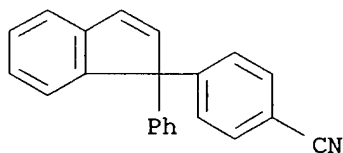


L27 ANSWER 57 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1974:132532 CAPLUS
 DN 80:132532
 TI Sigmatropic rearrangements of 1,1-diarylindenes. Migratory aptitudes in ground and excited states
 AU McCullough, John J.; McClory, Michael R.
 CS Dep. Chem., McMaster Univ., Hamilton, ON, Can.
 SO Journal of the American Chemical Society (1974), 96(6), 1962-3
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB To characterize the transition states of 1,2-Ph migrations in thermal and photochem. sigmatropic shifts, migratory aptitudes in diphenylindenes (I; R = Br, CN, MeO) were detd. On irradiation all 3 substituted groups migrate more efficiently than a Ph group. The selectivity is >98:2 for R = CN, 86:14 (R = Br) and 95:5 (R = MeO). On heating (258.degree., Ph2O solvent) the selectivity in favor of R = CN is 98:2; for R = Br and MeO, the substituted groups migrate to the same extent as the Ph group. The products were identified by unambiguous synthesis, and their ratios measured by gas chromatog. and NMR spectroscopy. It is suggested that donor-acceptor interactions may det. the photochem. product, while stability of the .sigma.-system of an intermediate controls the thermal reaction.
 IT 52033-61-1 52033-62-2 52033-63-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (rearrangement of)
 RN 52033-61-1 CAPLUS
 CN 1H-Indene, 1-(4-bromophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



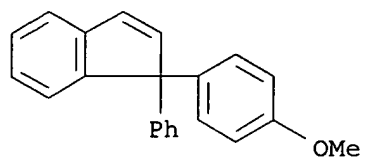
Same as #40

RN 52033-62-2 CAPLUS
 CN Benzonitrile, 4-(1-phenyl-1H-inden-1-yl)- (9CI) (CA INDEX NAME)

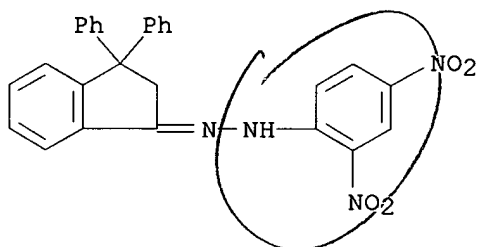


RN 52033-63-3 CAPLUS
 CN 1H-Indene, 1-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

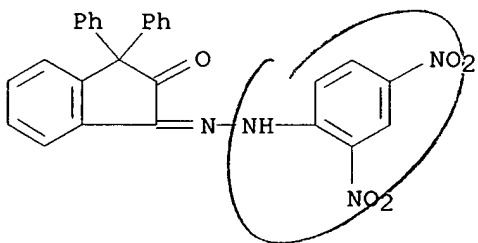
10/043,640



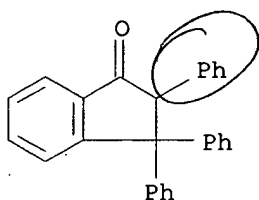
L27 ANSWER 58 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1974:94754 CAPLUS
 DN 80:94754
 TI .alpha.-Carbonyl nitrophenylhydrazones. III. Unequivocal synthesis
 AU Venien, F.; Mandrier, C.; Kerfanto, M.
 CS Serv. Rech., Ec. Natl. Super. Chim. Rennes, Rennes/Beaulieu, Fr.
 SO Bulletin de la Societe Chimique de France (1973), (9-10, Pt. 2), 2799-807
 CODEN: BSCFAS; ISSN: 0037-8968
 DT Journal
 LA French
 AB .alpha.-Methylenehydrazones [I; R = H, Me, Et, Ph; R1 = H, Me, Ph; R2 = o-NO2, p-NO2, 2,4-(NO2)2] were oxidized by SeO2 (Riley, et al., 1932) and by a bromination-aminolysis-hydrolysis process (Kerfanto, 1965) to give the corresponding .alpha.-carbonyl compds.
 IT **51758-39-5**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidn. of)
 RN 51758-39-5 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-3,3-diphenyl-, (2,4-dinitrophenyl)hydrazone
 (9CI) (CA INDEX NAME)



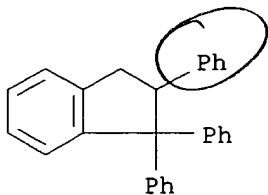
IT **51758-70-4P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 51758-70-4 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl-, 1-[(2,4-dinitrophenyl)hydrazone]
 (9CI) (CA INDEX NAME)



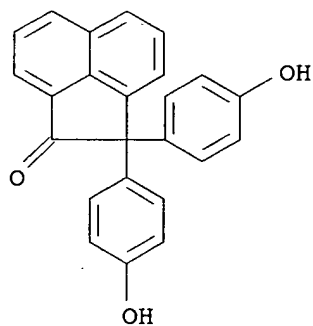
L27 ANSWER 59 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1973:418463 CAPLUS
 DN 79:18463
 TI Deuterium isotope effect and migratory aptitudes in the Clemmensen reduction of 1-indanones
 AU Galton, Suzanne A.; Abbas, Rana
 CS Coll. Pharm. Sci., Columbia Univ., New York, NY, USA
 SO Journal of Organic Chemistry (1973), 38(11), 2008-11
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB 2-Phenyl-1-indanone-2-d was reduced to 2-phenylindan-1,1,2-d₃ and 2-phenylindene-3-d (I), while 2-phenyl-1-indanone under identical conditions gave 2-phenylindan and 2-phenylindene (II), both in the ratio of 3:1. Kinetic measurements were carried out by following the increase in optical density for the formation of olefins. k_H/k_D was found to be 1.53. Redn. of 2-methyl-2-phenyl-1-indanone gave 2-methyl-2-phenylindan and 2-methyl-3-phenylindene, showing that the Ph group migrated preferentially. 2,3,3-Triphenyl-1-indanone under identical conditions gave 1,1,2-triphenylindan and 1,1,2-triphenylindene. The formation of I and II show that H migrates better than Ph. The low isotope effect and the migratory aptitude of H > Ph > Me support the proposed mechanism.
 IT **39253-55-9**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (Clemmensen redn. of)
 RN 39253-55-9 CAPLUS
 CN 1H-Inden-1-one, 2,3-dihydro-2,3,3-triphenyl- (9CI) (CA INDEX NAME)



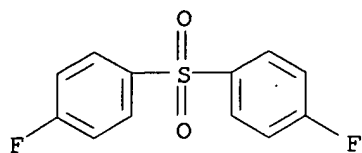
IT **39253-56-0P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 39253-56-0 CAPLUS
 CN 1H-Indene, 2,3-dihydro-1,1,2-triphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 60 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1973:72824 CAPLUS
 DN 78:72824
 TI Aromatic polyethers of the cardo (loop) type
 AU Vinogradova, S. V.; Korshak, V. V.; Salazkin, S. N.; Kul'kov, A. A.
 CS Inst. Elementoorg. Soedin., Moscow, USSR
 SO Vysokomolekulyarnye Soedineniya, Seriya A (1972), 14(12), 2545-52
 CODEN: VYSAAF; ISSN: 0507-5475
 DT Journal
 LA Russian
 AB Polyethers of type I ($X = SO_2, CO$), obtained by treating bisphenol salts (II, $M = Na, K$) with 4,4'-dichloro(or difluoro)diphenyl sulfone or 4,4'-difluorobenzophenone at 165-85.deg. for 1.5-18 hr in Me_2SO , were thermally stable to 450-510.deg., were sol. in most org. solvents, and could be formed into transparent film. Introduction of cardo (Latin for loop) groups onto the polyether chain raised the polyether m.p. by 50-100.deg., in comparison with bisphenol A polyethers. Replacing SO_2 by CO led to a 20-30.deg. decrease in thermal stability. Cardo polymers are defined as polymers with cyclic side groups, one ring atom of each of which is part of the polymer chain.
 IT **40820-05-1 40905-09-7**
 RL: USES (Uses)
 (heat resistance and solubility of)
 RN 40820-05-1 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-bis(4-hydroxyphenyl)-, polymer with 1,1'-sulfonylbis[4-fluorobenzene] (9CI) (CA INDEX NAME)
 CM 1
 CRN 23916-52-1
 CMF C24 H16 O3

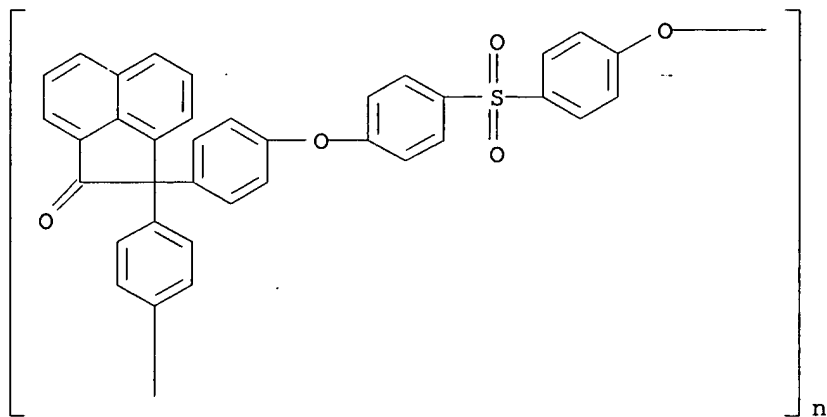


CM 2
 CRN 383-29-9
 CMF C12 H8 F2 O2 S

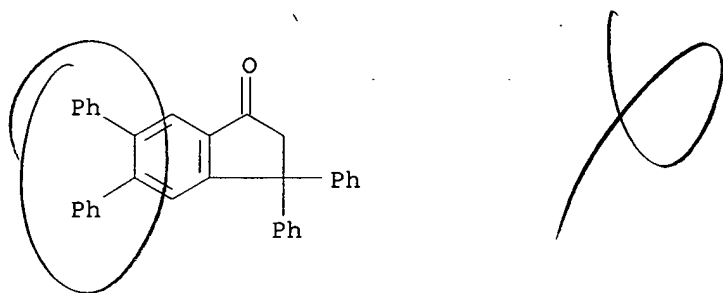


RN 40905-09-7 CAPLUS


CN Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene(2-oxo-1(2H)-acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



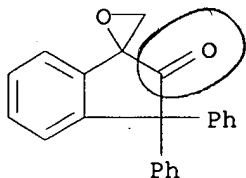
L27 ANSWER 61 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1972:487533 CAPLUS
DN 77:87533
TI Rearrangement of 3a,7a-dihydro-3,3a,5,6-tetraphenylinden-1-one
AU Wawzonek, S.; Friedrich, B. H.
CS Dep. Chem., Univ. Iowa, Iowa City, IA, USA
SO Journal of Organic Chemistry (1972), 37(15), 2520-1
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB Evidence is presented for the involvement of the enol form and the enolate ion in the rearrangement of 3a,7a-dihydro-3,3a,5,6-tetraphenylinden-1-one to 3,3,5,6-tetraphenylinden-1-one by acid and base. The enol may also participate in the uncatalyzed thermal rearrangement of the unsatd. ketone.
IT **16643-46-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 16643-46-2 CAPLUS
CN 1H-Inden-1-one, 2,3-dihydro-3,3,5,6-tetraphenyl- (9CI) (CA INDEX NAME)



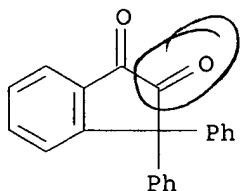
L27 ANSWER 62 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1972:113715 CAPLUS
DN 76:113715
TI Structure and properties of poly-1,3,4-oxadiazoles
AU Korshak, V. V.; Berestneva, G. L.; Vinogradova, S. V.; Gergaya, M. S.;
Tur, D. R.
CS Inst. Elementoorg. Soedin., Moscow, USSR
SO Khimiya Geterotsiklicheskikh Soedinenii (1971), 7(11), 1457-63
CODEN: KGSSAQ; ISSN: 0132-6244
DT Journal
LA Russian
AB The glass-transition temp., sp. surface, pore vol., and soly. of
poly-1,3,4-oxadiazoles based on 4',4''-diphenylphthalidedicarboxylic
acid-4,4'-oxydiphenylenedicarboxylic dihydrazide copolymer [25266-80-2]
and its copolymers with 4',4''-diphenylphthalidedicarboxylic dihydrazide [
34372-40-2] and 4,4'-oxydiphenylenedicarboxylic acid [2215-89-6]
increased with the phthalide content of the copolymer. Copolymers contg.
only oxydiphenylene groups had spherulite structures, whereas the others
had fibrillar structures.



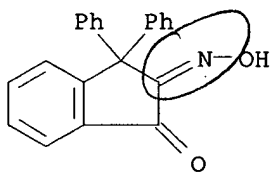
L27 ANSWER 63 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1972:112947 CAPLUS
 DN 76:112947
 TI Reactions of quinones and .alpha.-diketones with diazoalkanes. XIX.
 3,3-Diphenyl-indan-1,2-dione
 AU Eistert, Bernd; Mussler, Inge; Witzmann, Hans K.; Ganster, Otto
 CS Inst. Org. Chem., Univ. Saarlandes, Saarbruecken, Fed. Rep. Ger.
 SO Chemische Berichte (1972), 105(1), 234-43
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 AB ,3-Diphenyl-1,2-indandione (I) reacted with CH₂N₂ in aprotic medium to give 1-hydroxy-1-(diazomethyl)-3,3-diphenyl-2-indanone, which was trapped as 1-hydroxy-3,3-diphenyl-1-(4,5,6,7-tetrabromo-1,3-benzodioxol-2-yl)-2-indanone (II) by reaction with tetrabromo-o-benzoquinone. In a protic medium, the reaction of I with CH₂N₂ gave 40% 3-oxo-1,1'-epoxy-1-methyl-4,4-diphenyl-1,-2,3,4-tetrahydronaphthalene (III) and 11% 4-methoxy-2-oxo-1,1-diphenyl-1,2-dihydronaphthalene. Reaction of I with MeCHN₂ yielded 12% 1-ethoxy-2-methyl-3-oxo-4,4-diphenyl-3,4-dihydronaphthalene, which was hydrolyzed with HI to give the corresponding 1-hydroxy compd. (IV). Japp-Klingemann cleavage of IV gave p-O₂NC₆H₄NHN:CM₆COPh₂C₆H₄CO₂-Me-o. Reaction of I with N₂CHCO₂Et in the presence of Et₂NH gave 99% 1-[diazo(ethoxycarbonyl)methyl]-1-hydroxy-2-oxo-3,3-diphenylindan, which with methanolic HCl gave 1-hydroxy-2-(ethoxycarbonyl)-4,4-diphenyl-3-oxo-3,4-dihydronaphthalene (V). Hydrolysis of V with KOH and subsequent decarboxylation gave 1-hydroxy-3-oxo-4,4-diphenyl-3,4-dihydronaphthalene dihydrate.
 IT **36441-13-1P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 36441-13-1 CAPLUS
 CN Spiro[1H-indene-1,2'-oxiran]-2(3H)-one, 3,3-diphenyl- (9CI) (CA INDEX NAME)



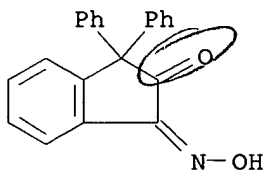
IT **7312-39-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with diazoalkanes)
 RN 7312-39-2 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



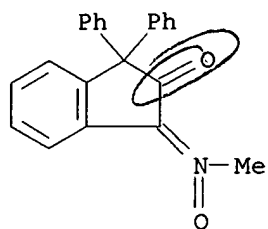
L27 ANSWER 64 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1971:141340 CAPLUS
 DN 74:141340
 TI Alkylation of .alpha.-oximinocarbonyl compounds. III. Isomeric
 3,3-diphenylindandione monoximes
 AU Eistert, Bernd; Witzmann, Hans K.
 CS Inst. Org. Chem., Saarlandes Univ., Saarbruecken, Fed. Rep. Ger.
 SO Justus Liebigs Annalen der Chemie (1971), 744, 105-10
 CODEN: JLACBF; ISSN: 0075-4617
 DT Journal
 LA German
 AB 3,3-Diphenyl-1,2-indandione 2-oxime (I) was alkylated with RCHN2 (R = H or
 Me) or Me2SO4 to give 95% 2-[RN(O):-substituted]-3,3-diphenyl-1-indanones
 (II). Similar compds. were obtained from the 1-oxime isomer (III) of I.
 However, alkylation, of I or III with Et2SO4 gave 80% or 72% of 2- or
 1-(EtON:-substituted)-3,3-diphenyl-1 (or 2)-indanone, resp. II and their
 isomers were rapidly hydrolyzed by heating with HCl to give
 3,3-diphenyl-1,2-indandione.
 IT **24283-27-0P 31861-93-5P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction of)
 RN 24283-27-0 CAPLUS
 CN 1,2-Indandione, 3,3-diphenyl-, 2-oxime (7CI, 8CI) (CA INDEX NAME)



RN 31861-93-5 CAPLUS
 CN 1,2-Indandione, 3,3-diphenyl-, 1-oxime (8CI) (CA INDEX NAME)

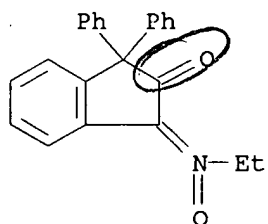


IT **31861-65-1P 31861-66-2P 31861-67-3P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 31861-65-1 CAPLUS
 CN 1,2-Indandione, 3,3-diphenyl-, 1-(N-methyloxime) (8CI) (CA INDEX NAME)



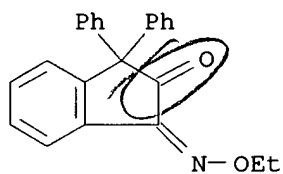
RN 31861-66-2 CAPLUS

CN 1,2-Indandione, 3,3-diphenyl-, 1-(N-ethyloxime) (8CI) (CA INDEX NAME)

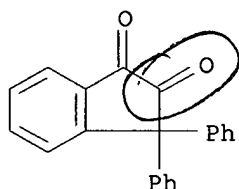


RN 31861-67-3 CAPLUS

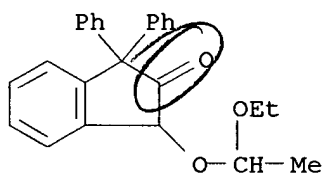
CN 1,2-Indandione, 3,3-diphenyl-, 1-(O-ethyloxime) (8CI) (CA INDEX NAME)



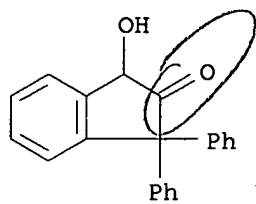
L27 ANSWER 65 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1971:140515 CAPLUS
 DN 74:140515
 TI Photochemical transformations of 3,3-diphenyl-1,2-indanedione and 3,3-dimethyl-1,2-indanedione. I. Reactions in the absence of oxygen
 AU Rigaudy, Jean; Paillous, Nicole
 CS Lab. Rech. Org., Ec. Super. Phys. Chim. Ind., Paris, Fr.
 SO Bulletin de la Societe Chimique de France (1971), (2), 576-84
 CODEN: BSCFAS; ISSN: 0037-8968
 DT Journal
 LA French
 AB Indandiones I and II are irradiated in proton donors, such as PhMe or ether, to give C(1)-alkylation and O(1)-alkylation products. Thus, I is irradiated in PhMe to give III; similarly prepd. is IV. V is obtained from I in C₆H₆. I in ether gives a mixt. of VI and VII. VIII is obtained by the irradiation of II in iso-PrOH.
 IT **7312-39-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photolysis of, in absence of oxygen)
 RN 7312-39-2 CAPLUS
 CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



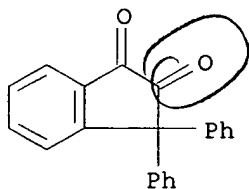
IT **32342-20-4P 32342-21-5P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 32342-20-4 CAPLUS
 CN Acetaldehyde, 3,3-diphenyl-2-oxo-1-indanyl ethyl acetal (8CI) (CA INDEX NAME)



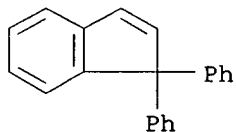
RN 32342-21-5 CAPLUS
 CN 2-Indanone, 3-hydroxy-1,1-diphenyl- (8CI) (CA INDEX NAME)



L27 ANSWER 66 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1971:140504 CAPLUS
DN 74:140504
TI Photochemical transformations of 3,3-diphenyl-1,2-indanedione. II.
Reactions in the presence of oxygen
AU Rigaudy, Jean; Paillous, Nicole
CS Lab. Rech. Org., Ec. Super. Phys. Chim. Ind., Paris, Fr.
SO Bulletin de la Societe Chimique de France (1971), (2), 585-91
CODEN: BSCFAS; ISSN: 0037-8968
DT Journal
LA French
AB The homophthalic anhydride (I) (oxidn. product) and the phthalide (II) (decarbonylation product) are formed by the irradiation of III in C₆H₆ or ether under air. Thus, III in C₆H₆ is irradiated to give a mixture of I, II, IV, anthraquinone, and 2-benzoyl-2'-hydroxybenzophenone, I and the benzophenone are the major products. Irradiation in ether gives I, II, and small amounts of 2-(Ph₂CH)C₆H₄CO₂H, IV, V, and 1,2-Bz₂C₆H₄.
IT 7312-39-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, photochemistry.)
RN 7312-39-2 CAPLUS
CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)

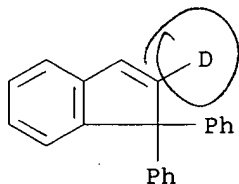


L27 ANSWER 67 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1971:75859 CAPLUS
 DN 74:75859
 TI Thermolysis of substituted indenenes. Sigmatropic phenyl and hydrogen migrations
 AU Miller, Larry Lee; Boyer, Rodney F.
 CS Dep. Chem., Colorado State Univ., Fort Collins, CO, USA
 SO Journal of the American Chemical Society (1971), 93(3), 650-6
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB 1,1,3-Triphenylindene, 1,1-diphenylindene, 1-methyl-1-phenylindene, and 1,3-diphenylindene rearrange at 250-300.degree. via a 1,2-phenyl migration. The resp. products formed are 1,2,3-triphenylindene, 2,3-diphenylindene, 3-methyl-2-phenylindene, and 2,3-diphenylindene. These reactions in Ph₂O are kinetically first order. The rate const. for 1,1,3-triphenylindene rearrangement is unaffected by added acid, base, or free-radical scavengers. .DELTA.S.noteq. for this phenyl migration is -25 entropy units. Solvation of the transition state for rearrangement accounts for a portion of this very neg. value as is indicated by the relative rates of rearrangement in solvent Decalin (2.45), Ph₂O (8.34), .omicron.-cresol (8.8), and HCONMe₂ (16.5). In contrast, H rearrangement from the 1 to the 2 position of 1-phenylindene shows no solvent effect and .DELTA.S.noteq. -2.3 entropy units. Studies of H (D) rearrangement in 1-deuterioindene, 1-phenylindene, and 1,3-diphenyl-1-deuterioindene at 150.degree. allow estn. of Ph substituent effects on sigmatropic H rearrangement. A 1-Ph accelerates migration by about 130 and 3-Ph by 6. Accelerative substituent effects on Ph migration are similar: 1-Ph (50), 3-Ph (5), 1-Me (8). These results are interpreted in terms of the transition state connecting reactant indene with an isoindene intermediate. The data reveal a migratory aptitude series H > Ph > Me which is detd. by the more effective bridging capabilities of H compared to C.
 IT **18636-52-7**
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent) (rearrangement of, kinetics of)
 RN 18636-52-7 CAPLUS
 CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)

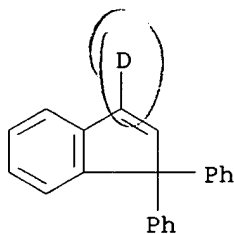


same as # 40

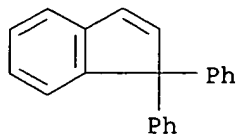
L27 ANSWER 68 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1971:75858 CAPLUS
 DN 74:75858
 TI Sigmatropic indenyl rearrangements induced by electron transfer reduction
 AU Miller, Larry Lee; Boyer, Rodney F.
 CS Dep. Chem., Colorado State Univ., Fort Collins, CO, USA
 SO Journal of the American Chemical Society (1971), 93(3), 646-50
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB Several 1,1-disubstituted indenenes were reduced with alkali metals in THF and ether solvents. Using Na-K in THF followed by quenching with water, the following reactions were obsd.: 1,1,3-triphenylindene produced 1,2,3-triphenylindan; 1,1-diphenylindene produced 1-phenylindene and 2,3-diphenylindene; and 1-methyl-1-phenylindene led to 3-methyl-2-phenylindene. In each case products arise from Ph migration in an intermediate radical anion or dianion. In contrast to Ph, Me does not migrate. 1,1-Dimethylindene redn. with Na-K in THF followed by quenching with water gave 1,1,1',1'-tetramethyl-2,2'-biindan.
 IT **31366-63-9P 31366-65-1P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 31366-63-9 CAPLUS
 CN Indene-2-d, 1,1-diphenyl- (8CI) (CA INDEX NAME)



RN 31366-65-1 CAPLUS
 CN Indene-3-d, 1,1-diphenyl- (8CI) (CA INDEX NAME)

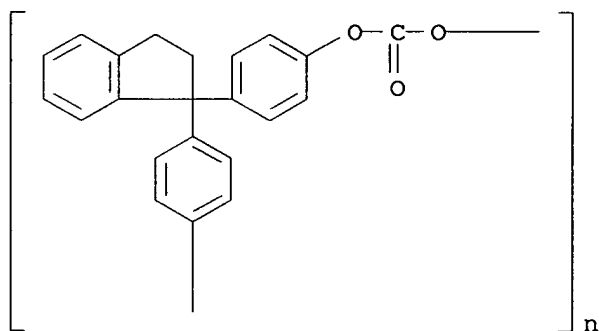


IT **18636-52-7**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (redn. of, rearrangement in)
 RN 18636-52-7 CAPLUS
 CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



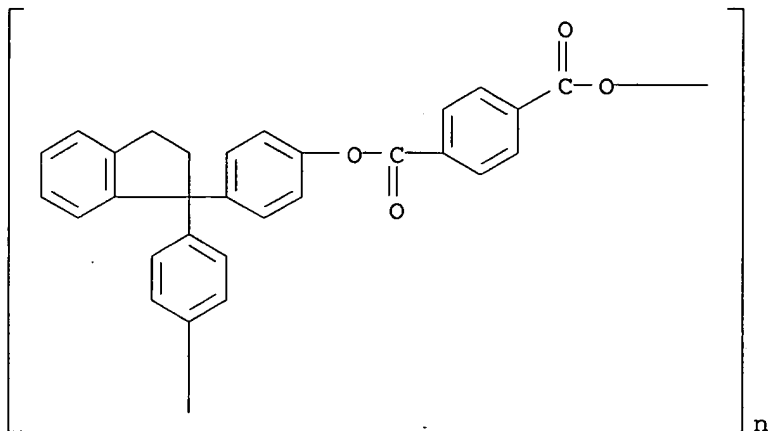
Same as #60

L27 ANSWER 70 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1970:520954 CAPLUS
 DN 73:120954
 TI Aromatic polyesters with large cross-planar substituents
 AU Morgan, Paul Winthrop
 CS Exptl. Sta., E. I. du Pont de Nemours and Co., Inc., Wilmington, DE, USA
 SO Macromolecules (1970), 3(5), 536-44
 CODEN: MAMOBX; ISSN: 0024-9297
 DT Journal
 LA English
 AB Polyesters were synthesized by the interfacial and soln. methods from aliphatic and aromatic diacid chlorides and bisphenols having essentially planar, doubly attached groups on the methylene unit between the phenylene rings. The planar units were 1-indanylidene, 1,1-phthalan, 9-fluorenylidene, 9-xanthenylidene, 9-(9,10-dihydroanthracenylidene), and 9-anthronylidene. All of the polymers had Tg values and softening temps. far above those of the corresponding polyesters based on 2,2-bis(4-hydroxyphenyl)propane and many of them softened at higher temps. than like polymers from phenolphthalein or polyesters with large three-dimensional substituents. Neither the polar character of a lactone substituent nor the bulkiness of a three-dimensional substituent are needed to attain a high softening temp. The polymers were sol. in many common solvents. The antagonistic solvent effect, reported previously for polyesters from phenolphthalein, was also obsd. for some members of this new group of polyesters. Fibers from the polyterephthalate of 9,9-bis(4-hydroxyphenyl)fluorene exhibited good thermal stability, being undamaged after 100 hr at 300.degree. in air.
 IT 28934-46-5P 28935-64-0P 29008-24-0P
 29474-58-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 28934-46-5 CAPLUS
 CN Poly(oxy carbonyloxy-p-phenylene-1-indanylidene-p-phenylene) (8CI) (CA INDEX NAME)



Same as
 # 69.
 —

RN 28935-64-0 CAPLUS
 CN Poly(oxyterephthaloyloxy-p-phenylene-1-indanylidene-p-phenylene) (8CI)
 (CA INDEX NAME)



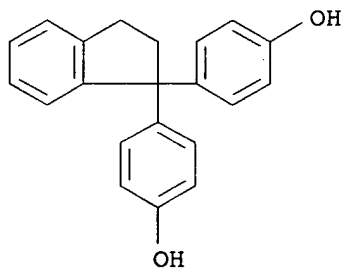
RN 29008-24-0 CAPLUS

CN Terephthaloyl chloride, polyester with 4,4'-(1-indanylidene)diphenol (8CI)
(CA INDEX NAME)

CM 1

CRN 29474-58-6

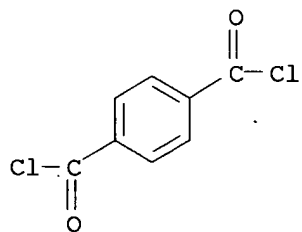
CMF C21 H18 O2



CM 2

CRN 100-20-9

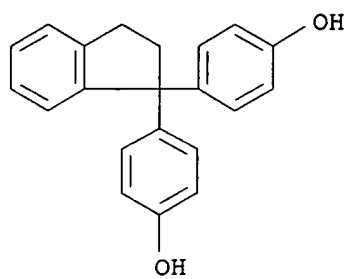
CMF C8 H4 Cl2 O2



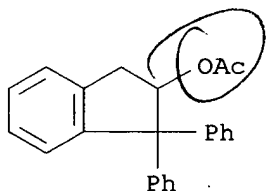
RN 29474-58-6 CAPLUS

10/043,640

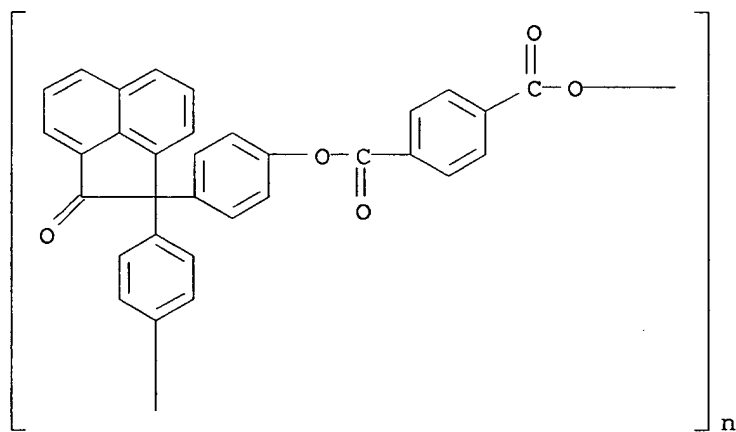
CN Phenol, 4,4'-(1-indanylidene)di- (8CI) (CA INDEX NAME)



L27 ANSWER 71 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1970:487671 CAPLUS
DN 73:87671
TI Reactions of palladium(II) with organic compounds. I. Oxidative cyclization of 3-methyl-3-phenylbut-1-ene and 3,3,3-triphenylpropene
AU Bingham, A. J.; Dyall, L. K.; Norman, R. O. C.; Thomas, Charles Barry
CS Dep. Chem., Univ. York, Heslington, UK
SO Journal of the Chemical Society [Section] C: Organic (1970), (13), 1879-83
CODEN: JSOOAX; ISSN: 0022-4952
DT Journal
LA English
AB The olefins $\text{PhR}_2\text{CCH:CH}_2$ ($\text{R} = \text{Ph}$ or Me) undergo oxidative cyclization to give the corresponding 1,1-disubstituted indenenes when treated with palladium(II) acetate in HOAc at 80.degree.. Evidence is adduced that reaction does not occur via the expected oxypalladation adducts, and that little or no carbonium-ion character is generated in the olefinic C skeleton during reaction. The probable pathway involves a relatively slow intramol. electrophilic aromatic substitution within a π -olefin complex.
IT **28292-49-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 28292-49-1 CAPLUS
CN 2-Indanol, 1,1-diphenyl-, acetate (8CI) (CA INDEX NAME)



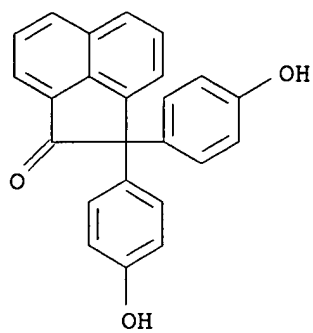
L27 ANSWER 72 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1970:122033 CAPLUS
 DN 72:122033
 TI Thermal stability of aromatic polyesters
 AU Korshak, V. V.; Vinogradova, S. V.; Danilov, V. G.; Beridze, L. A.;
 Salazkin, S. N.
 CS Inst. Elementoorg. Soedin., Moscow, USSR
 SO Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1970),
 12(2), 129-32
 CODEN: VYSBAI; ISSN: 0507-5483
 DT Journal
 LA Russian
 AB DTA curves of polyesters prepd. by condensing phenolphthalein with 1
 equiv. of sebacoyl chloride, isophthaloyl chloride, 4,4'-
 biphenyldicarbonyl chloride, or terephthaloyl chloride (I), and by
 condensing I with 9,9-bis(4-hydroxyphenyl)fluorene, 10,10-bis(4-
 hydroxyphenyl)-anthrone, 2,2-bis(4-hydroxyphenyl)acenaphthenone, or
 bisphenol A (II), showed that the compds. were stable .ltoreq.460.degree.
 in He. At 350-60.degree. the wt. loss in He was 2-3%. The wt. losses in
 He at 900.degree. were .ltoreq.50% for all the polyesters with the
 exception of those contg. II.
 IT **25949-48-8 26125-03-1**
 RL: PRP (Properties)
 (thermal stability of)
 RN 25949-48-8 CAPLUS
 CN Poly[oxy carbonyl-1,4-phenylenecarbonyloxy-1,4-phenylene(2-oxo-1(2H)-
 acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 26125-03-1 CAPLUS
 CN Terephthalic acid, polyester with 2,2-bis(p-hydroxyphenyl)-1-
 acenaphthenone (8CI) (CA INDEX NAME)

CM 1

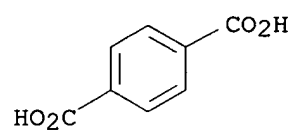
CRN 23916-52-1
 CMF C24 H16 O3



CM 2

CRN 100-21-0

CMF C8 H6 O4



L27 ANSWER 73 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1970:121227 CAPLUS

DN 72:121227

TI Condensation of 5-chloroacenaphthenequinone with phenols and naphthols

AU Matei, Ilie; Dumitriu, Maria; Cocarlea, I.

CS Org. Chim., Tech. Hochsch. Jassy, Iasi, Rom.

SO Buletinul Institutului Politehnic din Iasi (1968), 14(3-4), 237-44

CODEN: BUPIAE; ISSN: 0032-6100

DT Journal

LA German

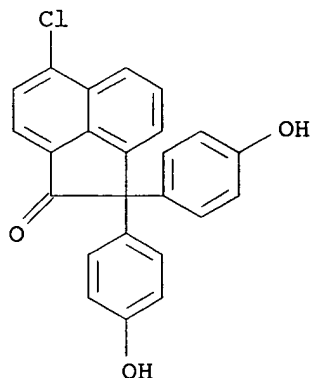
AB 5-Chloro-acenaphthenequinone (I) reacted with 2 moles phenol in the presence of concd. H₂SO₄ to give 1,1-bis(4-hydroxyphenyl)-5-chloro-2(1H)-acenaphthene, m. 233.degree.. .omicron.-Cresol and I in EtOH gave with concd. HCl 1,1-bis(3-methyl-4-hydroxyphenyl)-5-chloro-2(1H)-acenaphthene, m. 216.degree.. I and m-cresol in the presence of concd. H₂SO₄ gave II, m. 231-2.degree.; with .alpha. and .beta.-naphthol, analogous compds. were obtained, m. 232.degree., 305.degree., and 268.degree., resp. The oxo group of I with 5-Cl present did not participate in the condensation when the reagents were dissolved in alc. concd. HCl, due to the + E effect of the Cl. Without solvent in concd. H₂SO₄, pinacol-like intermediates are formed by reaction of both oxo groups which are stabilized by sepn. of H₂O to give cyclic anhydrides. The structures of the synthesized compds. were proved by anal. and ir spectroscopy.

IT 27427-11-8P 27427-12-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

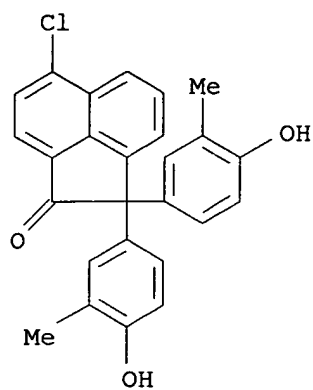
RN 27427-11-8 CAPLUS

CN 1-Acenaphthene, 6-chloro-2,2-bis(p-hydroxyphenyl)- (8CI) (CA INDEX NAME)

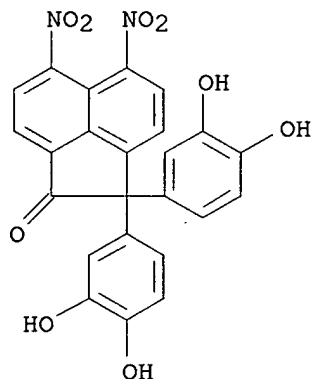


RN 27427-12-9 CAPLUS

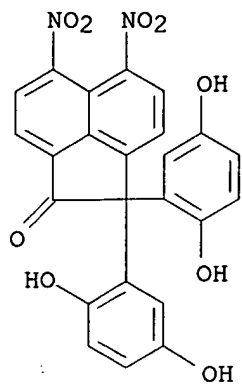
CN 1-Acenaphthene, 6-chloro-2,2-bis(4-hydroxy-m-tolyl)- (8CI) (CA INDEX NAME)



L27 ANSWER 74 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1970:121226 CAPLUS
 DN 72:121226
 TI Condensation of 5,6-dinitroacenaphthenequinone with phenols
 AU Matei, Ilie; Pastravanu, Mariana; Vasiliu, Silvia
 CS Org. Chem., Tech. Hochsch. Jassay, Iasi, Rom.
 SO Buletinul Institutului Politehnic din Iasi (1968), 14(3-4), 261-7
 CODEN: BUPIAE; ISSN: 0032-6100
 DT Journal
 LA German
 AB Phenol condensed with 5,6-dinitroacenaphthenequinone (I) gave 1,1-bis(4-hydroxyphenyl)-5,6-dinitro-2(1H)-acenaphthenone, m. 155.degree.. Reaction of p-cresol with I yielded II, m. >300.degree.. The condensation of .omicron.- and m-cresol with I gave products of unknown structure. Pyrocatechol was condensed with I to give 1,1-bis(3,4-dihydroxyphenyl)-5,6-dinitro-2(1H)-acenaphthenone, m. 282.degree.; with hydroquinone and I, 1,1-bis(2,5-dihydroxyphenyl)-5,6-dinitro-1(1H)-acenaphthenone, m. >300.degree., was obtained. Resorcinol was treated with I, with a smaller amt. of H2SO4 employed, to give III, m. >350.degree.. The structures of the reaction products were proved by anal. and ir spectroscopy.
 IT **27427-07-2P 27427-08-3P 27471-03-0P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 27427-07-2 CAPLUS
 CN 1-Acenaphthenone, 2,2-bis(3,4-dihydroxyphenyl)-5,6-dinitro- (8CI) (CA INDEX NAME)

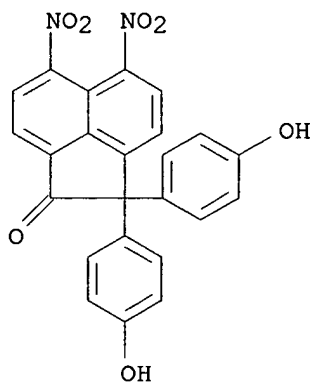


RN 27427-08-3 CAPLUS
 CN 1-Acenaphthenone, 2,2-bis(2,5-dihydroxyphenyl)-5,6-dinitro- (8CI) (CA INDEX NAME)

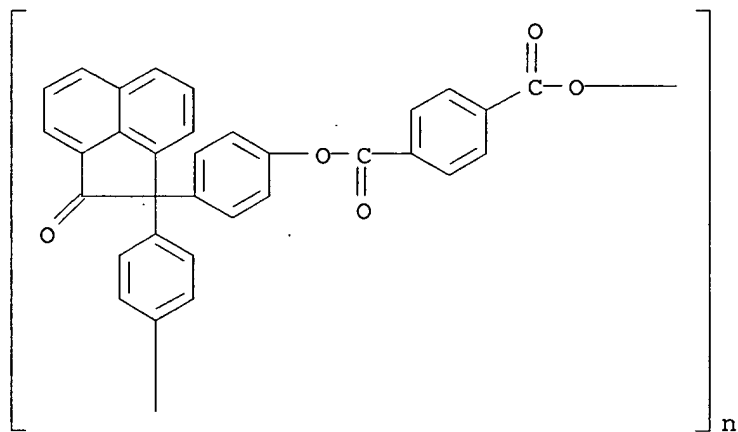


RN 27471-03-0 CAPLUS

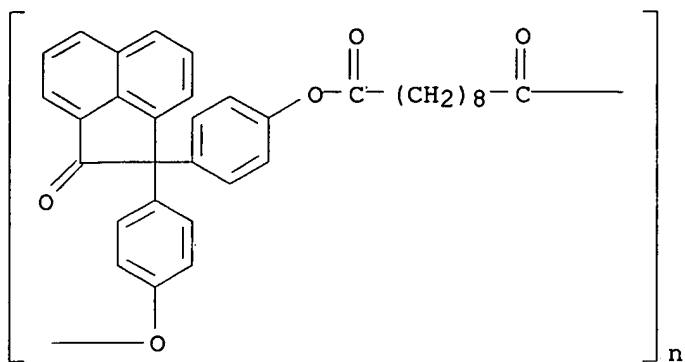
CN 1-Acenaphthenone, 2,2-bis(p-hydroxyphenyl)-5,6-dinitro- (8CI) (CA INDEX NAME)



L27 ANSWER 75 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1969:525037 CAPLUS
 DN 71:125037
 TI Linear polyesters and polycarbonates from bis(4-hydroxyphenyl)deoxybenzoin and 1,1-bis(4-hydroxyphenyl)-2-oxoacenaphthene
 AU Petrus, Alla; Mandasescu, Laura; Matei, I.
 CS Inst. Macromol. Chem. "Petru Poni", Iasi, Rom.
 SO Revue Roumaine de Chimie (1969), 14(6), 773-9
 CODEN: RRCHAX; ISSN: 0035-3930
 DT Journal
 LA English
 AB Polyesters from the title bisphenols and terephthaloyl, isophthaloyl, and sebacoyl chlorides and polycarbonates from COCl₂ were prepd. The viscosity, m.p., soly., and thermal stability of the title polymers are reported.
 IT 25949-48-8P 25950-55-4P 25950-56-5P
 26125-03-1P 26125-04-2P 26125-05-3P
 26125-06-4P 26161-46-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 25949-48-8 CAPLUS
 CN Poly[oxy-carbonyl-1,4-phenylenecarbonyloxy-1,4-phenylene(2-oxo-1(2H)-acenaphthylenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

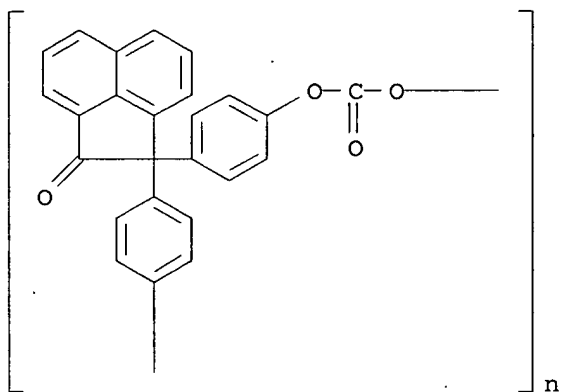


RN 25950-55-4 CAPLUS
 CN Poly[oxy-1,4-phenylene(2-oxo-1(2H)-acenaphthylenylidene)-1,4-phenyleneoxy(1,10-dioxo-1,10-decanediyl)] (9CI) (CA INDEX NAME)



RN 25950-56-5 CAPLUS

CN	Poly[oxy carbonyloxy-p-phenylene (2-oxo-1-acenaphthenylidene)-p-phenylene] (8CI) (CA INDEX NAME)
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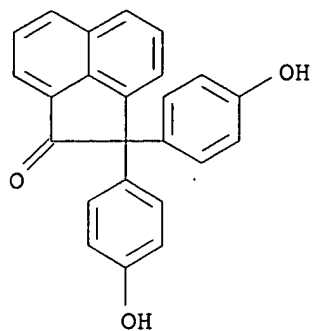
RN 26125-03-1 CAPLUS

CN Terephthalic acid, polyester with 2,2-bis(p-hydroxyphenyl)-1-acenaphthenone (8CI) (CA INDEX NAME)

CM 1

CRN 23916-52-1

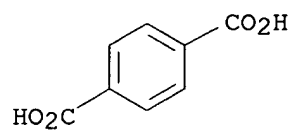
CMF C24 H16 O3



CM 2

CRN 100-21-0

CMF C8 H6 O4



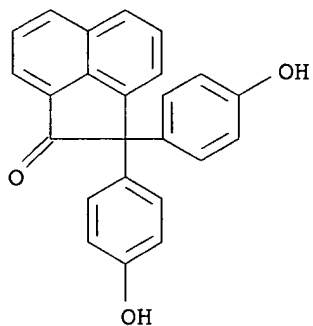
RN 26125-04-2 CAPLUS

CN Isophthalic acid, polyester with 2,2-bis(p-hydroxyphenyl)-1-acenaphthenone
(8CI) (CA INDEX NAME)

CM 1

CRN 23916-52-1

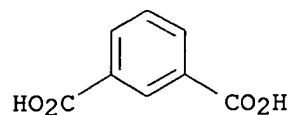
CMF C24 H16 O3



CM 2

CRN 121-91-5

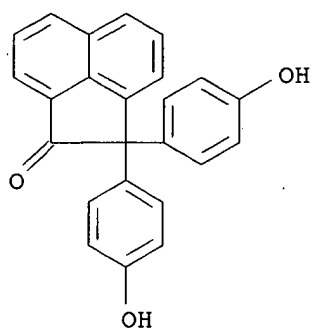
CMF C8 H6 O4



RN 26125-05-3 CAPLUS
 CN Sebacic acid, polyester with 2,2-bis(p-hydroxyphenyl)-1-acenaphthenone
 (8CI) (CA INDEX NAME)

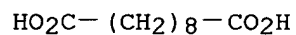
CM 1

CRN 23916-52-1
 CMF C24 H16 O3



CM 2

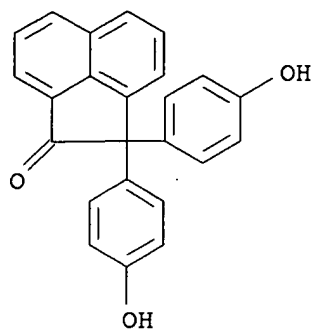
CRN 111-20-6
 CMF C10 H18 O4



RN 26125-06-4 CAPLUS
 CN Carbonic acid, polyester with 2,2-bis(p-hydroxyphenyl)-1-acenaphthenone
 (8CI) (CA INDEX NAME)

CM 1

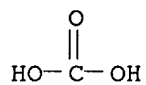
CRN 23916-52-1
 CMF C24 H16 O3



CM 2

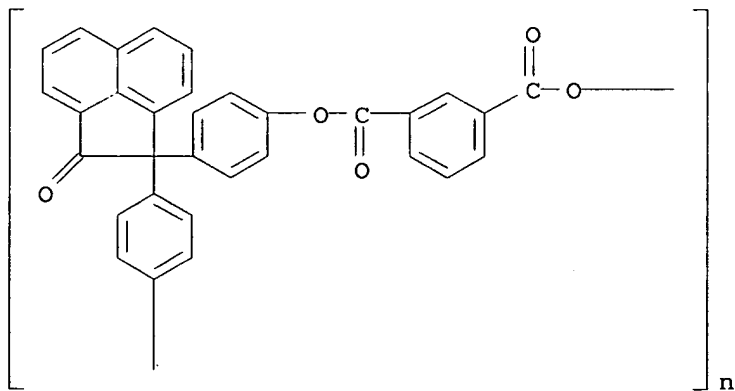
CRN 463-79-6

CMF C H2 O3



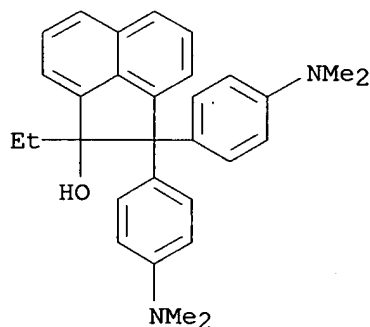
RN 26161-46-6 CAPLUS

CN Poly[oxyisophthaloyloxy-p-phenylene(2-oxo-1-acenaphthenylidene)-p-phenylene] (8CI) (CA INDEX NAME)

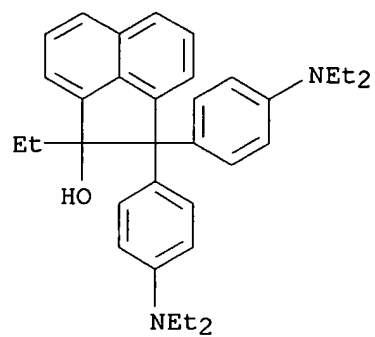


L27 ANSWER 76 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1969:461043 CAPLUS
 DN 71:61043
 TI Reactions of acenaphthenone with Grignard compounds
 AU Matei, Ilie; Lixandru, Tatiana
 CS Inst. Politeh., Iasi, Rom.
 SO Buletinul Institutului Politehnic din Iasi (1968), 14(1-2), 245-8
 CODEN: BUPIAE; ISSN: 0032-6100
 DT Journal
 LA Romanian
 AB The reaction of 2,2-bis[p-(dialkylamino)phenyl]-1-acenaphthenones (I, R = alkyl) and 2,2-bis(p-hydroxyphenyl)-1-acenaphthenone (II) with Grignard compds. yields acenaphthenols. Thus, to the Grignard compd. prepd. from 1.47 g. Mg and 9.3 g. EtI in 55 ml. Et2O, was added 4.8 g. I (R = Me) in 75 ml. anhyd. C6H6. The mixt. was refluxed 6 hrs. 3.9 g. EtI was added, and the mixt. refluxed for 10 hrs. adding 200 ml. 10% HCl pptd. a yellow-brown product which, after chromatog. on Al2O3, gave 1-ethyl-2,2-bis[p-(dimethylamino)phenyl]-1-acenaphthenol, m.p. 105.degree. (aq. EtOH). Similarly prepd. was the bis(p-diethylaminophenyl) analog. m.p. 118.degree. (EtOH). To the Grignard compd. prepd. from 1.47 g. Mg and 10.4 g. PhBr in 55 ml. Et2O. was added 1.2 g. II in 20 ml. C6H6 and the mixt. refluxed 15 hrs. to give 1-phenyl-2,2-bis(p-hydroxyphenyl)-1-acenaphthenol, m.p. 56.degree. (aq. EtOH). Similarly prepd. was the bis(m-cresyl) analog, m.p. 125.degree.. The ir spectra of the products are discussed.

IT 23342-52-1P 23342-53-2P 23421-82-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 23342-52-1 CAPLUS
 CN 1-Acenaphthenol, 2,2-bis[p-(dimethylamino)phenyl]-1-ethyl- (8CI) (CA INDEX NAME)

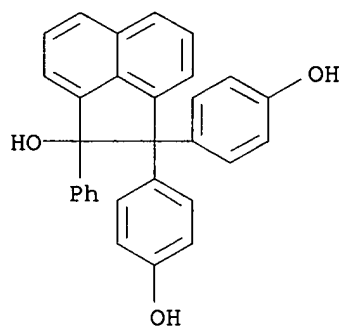


RN 23342-53-2 CAPLUS
 CN 1-Acenaphthenol, 2,2-bis[p-(diethylamino)phenyl]-1-ethyl- (8CI) (CA INDEX NAME)

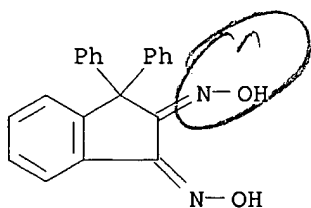


RN 23421-82-1 CAPLUS

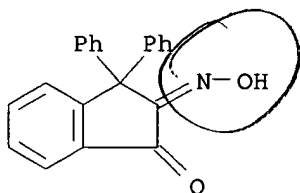
CN 1-Acenaphthenol, 2,2-bis(p-hydroxyphenyl)-1-phenyl- (8CI) (CA INDEX NAME)



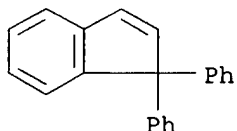
L27 ANSWER 77 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1969:409300 CAPLUS
 DN 71:9300
 TI Vicinal dioximes as gravimetric reagents
 AU Bark, Lionel S.; Brandon, David G.
 CS Univ. Salford, Salford, UK
 SO Talanta (1969), 16(4), 497-502
 CODEN: TLNTA2; ISSN: 0039-9140
 DT Journal
 LA English
 AB A series of 3,3-substituted indan-1,2-dione dioximes has been synthesized and their reactions with transition metals have been investigated. From the results obtained it is suggested that the selectivity of such dioximes, as gravimetric reagents, is not a function of the dioxime grouping but is due to metal-metal bonding in the complex.
 IT 1738-08-5 24283-27-0
 RL: ANST (Analytical study)
 (in detection of transition metal)
 RN 1738-08-5 CAPLUS
 CN 1,2-Indandione, 3,3-diphenyl-, dioxime (7CI, 8CI) (CA INDEX NAME)



RN 24283-27-0 CAPLUS
 CN 1,2-Indandione, 3,3-diphenyl-, 2-oxime (7CI, 8CI) (CA INDEX NAME)

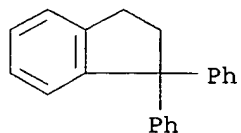


L27 ANSWER 78 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1969:402743 CAPLUS
DN 71:2743
TI Migratory aptitudes in a thermal, sigmatropic rearrangement
AU Miller, Larry Lee; Greisinger, R.; Boyer, Rodney F.
CS Colorado State Univ., Fort Collins, CO, USA
SO Journal of the American Chemical Society (1969), 91(6), 1578-80
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB The migratory aptitudes of Me, Ph, and H in the thermal rearrangement of these groups from the 1 to the 2 position of indene was investigated.
IT **18636-52-7**
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(rearrangement of, kinetics of)
RN 18636-52-7 CAPLUS
CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)

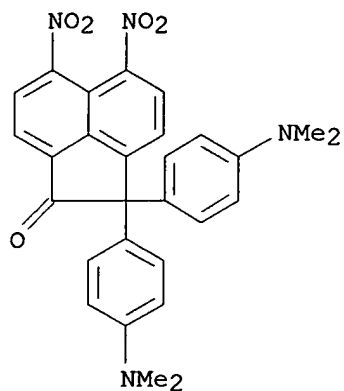


Same as #40

L27 ANSWER 79 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1968:443555 CAPLUS
 DN 69:43555
 TI Lead tetraacetate oxidation of 4,4,4-triphenyl-1-butanol,
 3,3,3-triphenyl-1-propanol, and 4,4,4-triphenylbutyric acid
 AU Starnes, W. H., Jr.
 CS Baytown Res. and Develop. Div., Esso Res. and Engl. Co., Baytown, TX, USA
 SO Journal of Organic Chemistry (1968), 33(7), 2767-74
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB Pb(OAc)₄ oxidns. of 4,4,4-triphenyl-1-butanol (I), 3,3,3-triphenyl-1-propanol (II), and 4,4,4-triphenylbutyric acid (III) were carried out in C₆H₆ at 70.degree.. In the absence of O the major products obtained from I were 1,1-diphenylindan (IV), 2,3,4,5-tetrahydro-5,5-diphenyl-1-benzoxepin (V), and 4,4,4-triphenyl-1-butyl acetate; from II, 4,4-diphenylchroman (VI) and 3,3,3-triphenyl-1-propyl acetate; and from III, IV exclusively. In the presence of O little (if any) IV was formed from I or III, and in both of these cases VI was a major product. On the basis of these results and other supporting evidence, it is argued that 3,3,3-triphenylpropyl radical is a prime intermediate in the Pb(OAc)₄ oxidns. of I and III, that anchimeric assistance due to Ph participation is not involved in the oxidative deformylation of I or in the oxidative decarboxylation of III, and that relief of steric compression provides a driving force for the unexpectedly facile deformylation of I. The data are consistent with a radical chain mechanism previously proposed for the Pb(OAc)₄ oxidn. of monohydric alcs. Possible reasons are considered for the apparent absence of C-O Ph migration in the Pb(OAc)₄ oxidns. of I-III, and independent methods of synthesis for several of the possible oxidn. products (including V) are described. 26 references.
 IT **16778-13-5P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 16778-13-5 CAPLUS
 CN Indan, 1,1-diphenyl- (8CI) (CA INDEX NAME)

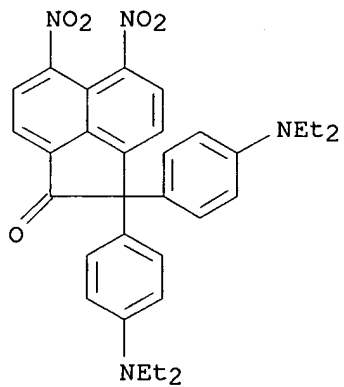


L27 ANSWER 80 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1968:60514 CAPLUS
 DN 68:60514
 TI Condensation of 4,5-acenaphthenequinone with dimethyl- and diethylaniline, reduction products and dyes
 AU Vasiliu, Silvia; Pastravanu, Mariana
 CS Inst. Politeh., Iasi, Rom.
 SO Buletinul Institutului Politehnic din Iasi (1966), 12(3-4), 187-92
 CODEN: BUPIAE; ISSN: 0032-6100
 DT Journal
 LA Romanian
 AB A mixt. of 2 g. 4,5-dinitroacenaphthenequinone (I), 2.4 cc. PhNMe₂, and 10 cc. AcOH was refluxed for 3 hrs., cooled, and pptd. with EtOH; the product was dissolved in CHCl₃ and repptd. with EtOH to give 1.8 g. II, m. 267.degree. (C₆H₆). Similarly was prepd. III, m. 240.5.degree. (C₆H₆). II and III are bordeaux crystals, sol. in cold CHCl₃ and Me₂CO, and in hot C₆H₆, AcOH, PhMe, CCl₄, difficulty sol. in Et₂O, MeOH, and EtOH. A soln. of 3 g. II (or III) in 60 cc. hot concd. HCl was treated portionwise with 6 g. Zn powder, stirred for 1.5 hrs., cooled, clarified, pptd. with H₂O, reclarified, and pptd. with dil. NaOH. Repeated dissoln. in concd. and dil. HCl and repptn. with dil. NaOH gave amorphous IV, m. 273.degree. (CHCl₃-Et₂O) and amorphous V, m. 210.degree. (CHCl₃-Et₂O). IV and V are dark blue triarylmethane dyes to the fuchsine class, sol. in CHCl₃, Me₂CO, CH₂Cl₂, and insol. in Et₂O, MeOH, EtOH, CCl₄, CS₂. IV and V can be tetrazotized and coupled to give the corresponding substantive disazo dyes of the type VI (coupling component and shades on wool, silk, Relon polyamide, and cotton fibers given): 1,4-H₂NC₁₀H₆SO₃H, bordeaux, bordeaux, red, red; 6,4,2-H₂N(HO)C₁₀H₅SO₃H, mauve, mauve, mauve, mauve, 4,5,2,7-H₂N(HO)C₁₀H₄(SO₃H)₂, mauve, mauve, -, mauve; 2-C₁₀H₇OH, -, -, khaki, khaki. The disazo dyes are all amorphous substances purified by repeated dissoln. in H₂O and pptn. with dil. HCl. Attempts to reduce II and III with Zn powder in AcOH were unsuccessful, giving at the end of the redn. a reddish brown soln. which changed to green in the presence of air. This phenomenon is attributed to a autoxidn. process, the mechanism of which consists of redn. of II and III to the corresponding aminated acenaphthols (VII) which, by autoxidn., form the free radicals VIII, and by electron transfer to the stable C atom give the triarylmethyl derivs. (IX), which are autoxidized to the triarylmethanecarbinol bases (X); in the presence of concd. HCl, X are transformed into IV and V.
 IT **17880-73-8P 17880-74-9P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 17880-73-8 CAPLUS
 CN 1-Acenaphthene, 2,2-bis[p-(dimethylamino)phenyl]-5,6-dinitro- (8CI) (CA INDEX NAME)



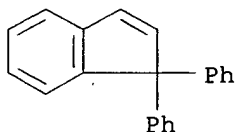
RN 17880-74-9 CAPLUS

CN 1-Acenaphthenone, 2,2-bis[p-(diethylamino)phenyl]-5,6-dinitro- (8CI) (CA INDEX NAME)

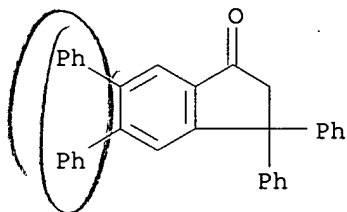


(Handwritten signature)

L27 ANSWER 81 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1968:38780 CAPLUS
DN 68:38780
TI Photochemical rearrangement and dimerization of 1,1-disubstituted indenenes
AU McCullough, John J.
CS McMaster Univ., Hamilton, Can.
SO Canadian Journal of Chemistry (1968), 46(1), 43-7
CODEN: CJCHAG; ISSN: 0008-4042
DT Journal
LA English
AB The photochem. behavior of 1,1-diphenylindene and 1,1-dimethylindene was studied. The former undergoes efficient rearrangement on direct irradiation or on MeCOPh sensitization, forming 2,3-diphenylindene and 1,2-diphenylindene. In contrast, 1,1-dimethylindene gave no detectable products of Me migration but formed dimeric cyclobutanes on sensitized and direct photolysis. The structures of the 2 dimers formed in the sensitized reaction were assigned from their N.M.R. spectra. H, like Me, migrated inefficiently if at all in this system. This difference in migratory aptitudes is discussed in terms of orbital symmetry of the indene system. 27 references.
IT 18636-52-7
RL: PRP (Properties)
(rearrangement (photochem.) of)
RN 18636-52-7 CAPLUS
CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



Same # 40



4

L27 ANSWER 83 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1967:66212 CAPLUS
 DN 66:66212
 TI Polyolefin stabilizers
 IN Bloom, Melvin S.; Newland, Gordon C.
 PA Eastman Kodak Co.
 SO Fr., 7 pp.
 CODEN: FRXXAK
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1450816		19660826		
PRAI	US		19640717		

AB Poly-.alpha.-olefins were stabilized by compds. such as bis(arylidene)dithiooxamides, 2,5-bis(arylthiazolo)[5,4-d]thiazoles, and Ni chelates of the above compns. Thus, a mixt. of 6 g. dithiooxamide and 63 g. salicylaldehyde was heated 5 min. at 230.degree. after water was evolved, cooled, turned into a mixt. of equal vols. of Et₂O and EtOH, filtered and recrystd. from cyclohexanone to give bis(salicylidene)dithiooxamide (I) (m. 250-3.degree.). To a warm soln. of 0.8 g. I in 100 ml. cyclohexanone, 0.6 g. Ni(OAc)₂ in EtOH was added, and the red ppt. formed was a Ni chelate of I. Other thiazole compds. and Ni chelates were prepd. similarly. Cryst. polypropylene was heated in Tetralin 30 min. at 145.degree., a stablizer was added, and the viscous soln. obtained was formed into sheets which were exposed to uv degradation in an Atlas Weather-Ometer. The following stabilization factors of the stabilized resin versus the unstabilized polymer were obtained (stabilizer used and stabilization factor given): 2-hydroxy-4-methoxybenzophenone, 2; 2,5-bis(phenylthiazolo)[5,4-d]thiazole, 1; 2,5-bis(o-methylphenyl)thiazolo[5,4-d]thiazole, 1; I, 11; 2,5-bis(p-hydroxyphenyl)thiazolo[5,4-d]thiazole, 3; 2,5-bis(p-hydroxyphenyl)thiazolo[5,4-d]thiazole(II), 5; 2,5-bis(o-dodecyloxyphenyl)thiazolo[5,4-d]thiazole, 6; 2,5-bis(3-methoxy-4-hydroxyphenyl)thiazolo[5,3-d]thiazole, 13; Ni chelate of I, 18; Ni chelate of II, 14. Significant stabilization was realized when OH or alkoxyl groups were attached to the benzene ring.

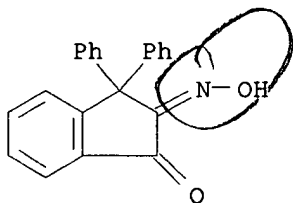
IT 24283-27-0

RL: USES (Uses)

(as light stabilizer for olefin polymers)

RN 24283-27-0 CAPLUS

CN 1,2-Indandione, 3,3-diphenyl-, 2-oxime (7CI, 8CI) (CA INDEX NAME)



L27 ANSWER 84 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1967:18434 CAPLUS

DN 66:18434

TI Photochemical transformations of 3,3-diphenyl-1,2-indandione

AU Rigaudy, Jean; Paillous, Nicole

CS Ecole Supérieure Phys. Chim. Ind., Paris, Fr.

SO Tetrahedron Letters (1966), (40), 4825-31

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA French

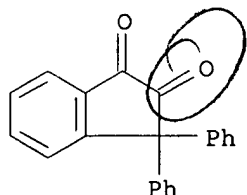
AB cf. CA 43, 620d. C₆H₆ solns. of the title compd. (I) were irradiated at 20.degree. with a Hg vapor arc. Degassed solns. in sealed tubes irradiated 70 hrs. with light filtered through aq. KNO₂ (all radiation at 4000 Å.) yielded 80% 9-phenyl-10-anthrone (II) by way of the intermediate ketene (III) or 2,2-diphenylbenzocyclobutenone (IV). Irradiation of solns. in open glass containers proceeded more rapidly, with formation of 37% diphenylhomophthalic anhydride (V), 10% 2-hydroxy-2'-benzoylbenzophenone (VI), and small amts. of diphenylphthalide (VII), 9-hydroxy-9-phenyl-10-anthrone (VIII), and anthraquinon (IX). With the exception of VI all products were identified by comparison with authentic samples. The structure of VI, m. 139-40.degree., ν 1668, 1620 cm.⁻¹ (KBr) was confirmed by synthesis. Treatment of o-MeOC₆H₄MgBr with o-BzC₆H₄COCl yielded 15% 2-methoxy-2'-benzoylbenzophenone, m. 134-5.degree., ν 1670, 1641 cm.⁻¹ (KBr), also obtained by methylation of VI with alk. Me₂SO₄. V and VII were formed without doubt from oxidn. complexes produced by fixation of O on the excited diketone. On the contrary, the other products, VI, VIII, and IX, were probably formed from II through the intermediacy of its principal autoxidation product, phenyl anthronyl hydroperoxide (X). Irradiation of X under the above conditions gave VIII, IX, and VI in 3, 5, and 30% yields, in the same proportion as from I. The degradation of X provides another example of sensitized decompn. by benzophenone since X may be regarded as a benzophenone analog. It was considered highly probable that this reaction results from an intramol. transfer of electronic energy. The formation of VIII and IX by A cleavage produced only small yields in relation to the preferred B cleavage to give VI, and favored processes based on homolysis of the O-O linkage. VI was not previously noted in the pyrolysis of X but its formation is not due uniquely to photochem. radical decompn. X submitted to degradation by concd. H₂SO₄ in cold Me₂CO, and by FeCl₃ in refluxing C₆H₆ gave 20:65 B-A cleavage.

IT 7312-39-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(photolysis of)

RN 7312-39-2 CAPLUS

CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 85 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1966:473272 CAPLUS

DN 65:73272

OREF 65:13633e-h,13634d-e

TI Synthesis of glycidyl ethers of acetylenic alcohols

AU Matsoyan, S. G.; Akopyan, L. A.

SO Armyansk. Khim. Zh. (1966), 19(4), 275-9

DT Journal

LA Russian

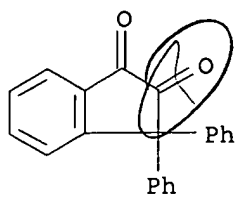
AB The initial acetylenic alcs. were synthesized by the known method (Nazarov, Izbrannye Tr. I.N. Nazarov, Akad. Nauk SSSR 1961,77). The condensation was conducted by two methods: (A) To 0.5 mole $\text{CH}_2\text{=CH-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-OH}$ (I) ($\text{R} = \text{R}_1 = \text{Me}$) contg. 0.25 mole $\text{BF}_3 \cdot \text{OEt}_2$ (II) with cooling to 0-5.degree. was added 0.1 mole chloromethyloxirane (III), the mixt. kept overnight, 0.5 ml. Et_3N added, and the mixt. distd. in vacuo to give 82.7% $\text{CH}_2\text{=CH-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-Cl}$ (IV) ($\text{R} = \text{R}_1 = \text{Me}$), n_{D}^{20} 1.4580, d_{20} 1.0799, MRD 44.63.degree.; and 13.4% $\text{CH}_2\text{=CH-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-Cl}$ (V) ($\text{R} = \text{R}_1 = \text{Me}$), n_{D}^{20} 1.4735, d_{20} 1.1698, MRD 64.61.degree.. (B) From 0.1 mole I ($\text{R} = \text{R}_1 = \text{Me}$), 0.1 mole III, and 0.1 mole II in 10 ml. dry Et_2O was obtained 39.6 and 31.9% the corresponding IV and V, resp. Condensation of 0.154 mole IV ($\text{R} = \text{R}_1 = \text{Me}$) with 0.03 mole III in the presence of 0.08 mole II yielded 71.7% V ($\text{R} = \text{R}_1 = \text{Me}$). I ($\text{R} = \text{Me}$, $\text{R}_1 = \text{Et}$) by A gave 79.2% the corresponding IV, n_{D}^{20} 1.4620, d_{20} 1.0627, MRD 49.33.degree. and 14.1% V, n_{D}^{20} 1.4725, d_{20} 1.1488, MRD 69.1.degree.. By B the yields for IV and V ($\text{R} = \text{Me}$, $\text{R}_1 = \text{Et}$) were 46.2% and 36.7%, resp. I [$\text{R} = \text{R}_1 = (\text{CH}_2)_5$], gave 85.8% the corresponding IV, n_{D}^{20} 1.4905, d_{20} 1.1103, MRD 56.48.degree.. $\text{H}_2\text{C=CH-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-OH}$ yielded 80.4% $\text{H}_2\text{C=CH-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-Cl}$ (VI), n_{D}^{20} 1.4840, d_{20} 1.1090, MRD 52.34.degree.. To powd. 0.253 mole KOH in 20 ml. Et_2O with vigorous stirring was dropwise added 0.102 mole IV ($\text{R} = \text{R}_1 = \text{Me}$) in 10 ml. Et_2O ; the mixt. refluxed, stirred at room temp. 4 hrs. and 1 hr. at 40.degree., and treated with H_2O and Et_2O , the sep'd. water later extd. with Et_2O , the Et_2O layers dried and evap'd., and the residue distd. in vacuo gave 81.2% VII ($\text{R} = \text{R}_1 = \text{Me}$), n_{D}^{20} 1.4383, d_{20} 0.9619, MRD 38.24.degree.. Similarly from 0.071 mole IV ($\text{R} = \text{Me}$, $\text{R}_1 = \text{Et}$) and 0.178 mole KOH in 30 ml. Et_2O was obtained 77.3% the corresponding VII, n_{D}^{20} 1.4432, d_{20} 0.9494, MRD 43.08.degree.. Similarly was prepd. 88.9% VII [$\text{R}_1 = (\text{CH}_2)_5$], n_{D}^{20} 1.4771, n_{20} 1.0173, MRD 50.07.degree.. V ($\text{R} = \text{R}_1 = \text{Me}$) (0.041 mole) and 0.102 mole KOH in 30 ml. Et_2O gave 82% VIII ($\text{R} = \text{R}_1 = \text{Me}$), n_{D}^{20} 1.4600, d_{20} 1.0918, MRD 59.13.degree.. Similarly was prepd. 77.9% VIII ($\text{R} = \text{Me}$, $\text{R}_1 = \text{Et}$), n_{D}^{20} 1.4595, d_{20} 1.0755, MRD 62.78.degree.. From 0.061 mole VI and 0.085 mole KOH in 10 ml. Et_2O was prepd. 81.6% IX, n_{D}^{20} 1.4732.

IT 7312-39-2, 1,2-Indandione, 3,3-diphenyl-
(prepn. of)

RN 7312-39-2 CAPLUS

CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)

10/043,640



L27 ANSWER 86 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1966:473271 CAPLUS

DN 65:73271

OREF 65:13633d-e

TI Reactions of diaryl diazoalkanes. VI. Diphenyldiazomethane and benzoyl cyanide

AU Bettinetti, Gian Franco; Donetti, Arturo

CS Univ., Pavia

SO Gazz. Chim. Ital. (1966), 96(7), 965-72

DT Journal

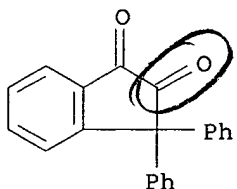
LA Unavailable

AB cf. CA 63, 11544d. Diphenyldiazomethane reacts with BzCN to yield N and triphenylglycidonitrile (I). The exothermic reaction was carried out without solvents, with equimol. amts. of reactants, at 15-20.degree., during 24 hrs. N formation is quant. and the yield of the product 90-4%. The structure of I was detd. by ir (the 2232 cm.-1 band) and by some chem. réactions characteristic for the epoxy structure.

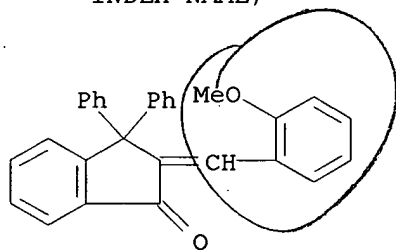
IT 7312-39-2, 1,2-Indandione, 3,3-diphenyl-
(prepn. of)

RN 7312-39-2 CAPLUS

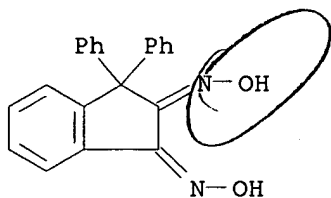
CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 87 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1965:471206 CAPLUS
DN 63:71206
OREF 63:13043a-c
TI Cis-trans isomerism in 2-arylidene-3,3-diphenylindan-1-ones
AU Bevan, J. A.; Gagnon, P. E.; Rae, I. D.
CS Natl. Res. Council, Ottawa
SO Can. J. Chem. (1965), 43(9), 2612-14
DT Journal
LA English
AB The earlier assignments (CA 36, 13141) as the cis and trans forms of 2-arylidene-3,3-diphenyl-1-one obtained by condensation of aromatic aldehydes with 3,3-diphenylindan-1-one are revised from N.M.R. studies. I and II prepd. are (R, m.p. of I, and m.p. of II given): Ph, 172.degree., 192.degree.; p-ClC6H4, 201.degree., 176.degree.; p-MeOC6H4, 163.degree., 133.degree.; m-MeC6H4, 175.degree., 104.degree.; o-ClC6H4, 151.degree., 197.degree.; o-MeC6H4, 176.degree., 190.degree.; o-MeOC6H4, 216.degree., 182.degree.; o-EtOC6H4, 161.degree., 153.degree.. The benzylidene proton of I absorbs at 474-496 cycles/sec. and that of II at 404-423 cycles/sec.
IT 4051-49-4, 1-Indanone, 2-(o-methoxybenzylidene)-3,3-diphenyl-, trans-
(nuclear magnetic resonance of)
RN 4051-49-4 CAPLUS
CN 1-Indanone, 2-(o-methoxybenzylidene)-3,3-diphenyl-, trans- (8CI) (CA INDEX NAME)



L27 ANSWER 88 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1965:427706 CAPLUS
DN 63:27706
OREF 63:4939a
TI 3,3-Diphenylindan-1,2-dione dioxime as a highly sensitive precipitant for palladium
AU Bark, L. S.; Brandon, D.
CS Roy. Coll. Advan. Technol., Salford, UK
SO Talanta (1965), 12(8), 781
DT Journal
LA English
AB 3,3-Diphenylindan-1,2-dione dioxime was prepd. and a preliminary investigation shows it to be more sensitive than indan-1,2-dione dioxime as a precipitant for Pd(II).
IT **1738-08-5**, 1,2-Indandione, 3,3-diphenyl-, dioxime (palladium pptn. by)
RN 1738-08-5 CAPLUS
CN 1,2-Indandione, 3,3-diphenyl-, dioxime (7CI, 8CI) (CA INDEX NAME)



L27 ANSWER 89 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1965:423949 CAPLUS

DN 63:23949

OREF 63:4224e-f

TI Condensation of diketones with aromatic compounds. III. Further reactions of .alpha.-diketones

AU Davidson, Irene M.; Musgrave, O. C.; Manson, D. L.

CS Univ. Aberdeen, UK

SO J. Chem. Soc. (1965), (May), 3040-4

DT Journal

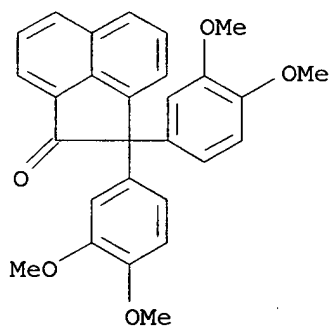
LA English

AB The acid-catalyzed reactions of biacetyl with catechol, m-dimethoxybenzene, or 1,2,4-trimethoxybenzene, give 3,3-diarylbutan-2-ones. Veratrole reacts with acenaphthenequinone in a similar manner to give 2,2-bis(3,4-dimethoxyphenyl)acenaphthene but with 9,10-phenanthrenequinone it gives 2,3,6,7-tetramethoxyphenanthro(9,10-1)phenanthrene. Cf. CA 59, 3847c.

IT 3452-32-2, 1-Acenaphthene, 2,2-bis(3,4-dimethoxyphenyl)-
3452-34-4, 1-Acenaphthene, 2,2-bis(3,4-dihydroxyphenyl)-,
tetraacetate
(prepn. of)

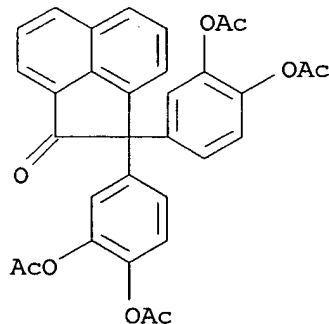
RN 3452-32-2 CAPLUS

CN 1-Acenaphthene, 2,2-bis(3,4-dimethoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)



RN 3452-34-4 CAPLUS

CN 1-Acenaphthene, 2,2-bis(3,4-dihydroxyphenyl)-, tetraacetate (7CI, 8CI)
(CA INDEX NAME)



L27 ANSWER 90 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1964:23191 CAPLUS

DN 60:23191

OREF 60:4067b-f

TI Derivatives of 2-benzyl-1-indanone. Competing alicyclic and aromatic monobromination

AU Coppens, Guillaume A.; Coppens, Mireille; Keville, Dennis N.; Cromwell, Norman H.

CS Univ. Nebraska, Lincoln

SO J. Org. Chem. (1963), 28(11), 3267-9

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

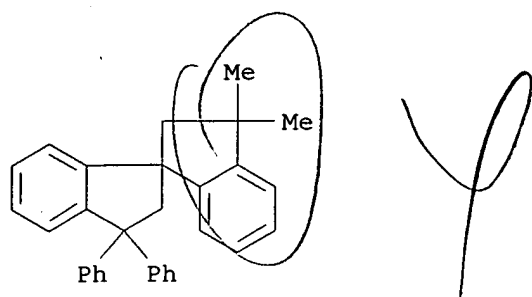
LA Unavailable

AB cf. CA 54, 8747a. EtOH (20 ml.) contg. 7.94 g. 1-indanone (ice bath) treated slowly with 0.34 g. KOH and 8.95 g. p-Me₂NC₆H₄CHO in 50 ml. ice-cold EtOH, the mixt. refrigerated 16 hrs., and the alc.-washed ppt. (15.0 g., m. 161-2.degree.) recrystd. from dioxane gave 2-(p-dimethylaminobenzal)-1-indanone (I), m. 164-5.degree., λ 271, 431 m. μ . (ϵ 17,400, 36,600), ν 1698, 1829, 1605 cm.⁻¹, nuclear magnetic resonance (n.m.r.) 7.05, 6.13, 3.37, 2.9-2.3, 2.15 τ . Similar condensation with 9.07 g. p-O₂NC₆H₄NO₂ yielded 80% 2-(p-nitrobenzal)-1-indanone, m. 251-2.degree. (AcOH), λ 321 m. μ , ν 1692 cm.⁻¹. I (9.0 g.) in 900 ml. dioxane hydrogenated at 45-50.degree./1 atm. with 0.9 g. 10% Pd-C and the filtered soln. evapd., the residue crystd. from alc. and the product (70%, m. 77-9.degree.) recrystd. repeatedly gave 2-(p-dimethylaminobenzyl)-1-indanone (II), m. 79-80.degree., λ 249, 293 m. μ . (ϵ 32,000, 6700), ν 1715, 1619 cm.⁻¹ (CCl₄), n.m.r. peaks at 7.12, 7.8-6.5, 3.35, 2.90, 2.9-2.4, 2.27 τ . II (21.2 g.) in 75 ml. CHCl₃ stirred 1 hr. in sunlight with addn. of 12.8 g. Br in 25 ml. CHCl₃, the soln. kept 30 min., and the residue on evapn. recrystd. from alc. gave 76% hygroscopic HBr salt, m. 123.degree., λ 246, 287 m. μ . (ϵ 19,800, 4800), ν 1712 cm.⁻¹ (MeCN), extd. (10 g.) with 250 ml. 3:2 5% aq. Na₂CO₃Et₂O, and the Et₂O layer washed and dried (MgSO₄), evapd., and the product (81%) recrystd. from Et₂O-petr. ether gave pure 2-(m-bromo-p-dimethylaminobenzyl)-1-indanone (III), m. 71-2.degree., λ 247, 289 m. μ . (ϵ 30,500, 8100), ν 1719, 1614 cm.⁻¹ (CCl₄), n.m.r. peaks at 7.22, 7.8-6.5, 3.1-2.4, 2.23 τ . III (0.01M in MeCN) and 0.03M C₅H₁₁N heated at 91.9.degree. in sealed ampuls up to 30 hrs. underwent no reaction measurable by redn. in base concn. or by increase in Br ion concn. III (7.0 g.) and 15 ml. MeI in 20 ml. alc. heated 15 hrs. at 60.degree. in a sealed tube and kept 2 days at 20.degree., extd. with Et₂O and the product (28%) recrystd. from alc. gave pure MeI salt (IV), m. 152-3.degree., λ 242, 295 m. μ . (ϵ 25,700, 4700). IV (0.0082M in MeCN) and IV (0.0041M in MeCN) together with Et₄NBr (0.0239M in MeCN) heated 3 days in sealed tubes at 91.9.degree. failed to develop any acidity as shown by acid-base titrations in Me₂CO against resorcinol blue or by bromide titrations by potentiometry in acidified Me₂CO against aq. AgNO₃. The results of bromination of II to III differ from the alicyclic bromination of 2-benzyl-1-indanone or 2-benzyl-3,3-dimethyl-1-indanone which give excellent yields of the corresponding 2-bromo-2-benzyl-1-indanone.

IT 105069-46-3, 1,1'-Spirobiindan, 3,3-dimethyl-3',3'-diphenyl- (prepn. of)

RN 105069-46-3 CAPLUS

CN 1,1'-Spirobi[1H-indene], 2,2',3,3'-tetrahydro-3,3-dimethyl-3',3'-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 91 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1964:23190 CAPLUS

DN 60:23190

OREF 60:4066h,4067a-b

TI 1,1'-Spirobiindans

AU Barclay, L. R. C.; Chapman, Ralph A.

CS Mt. Allison Univ., Sackville

SO Can. J. Chem. (1964), 42(1), 25-35

DT Journal

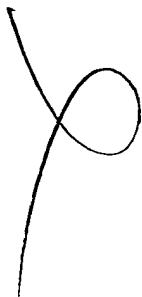
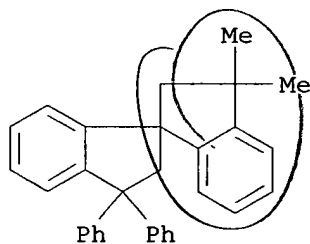
LA Unavailable

AB The product from both the acid-catalyzed cyclodehydration of 4-methyl-4-phenyl-2-pentanone described by Hoffman and by Barnes and co-worker and the reaction of the satd. cyclic dimer of .alpha.-methylstyrene with $AlCl_3$ reported by Adams and co-workers was shown to be 3,3,3',3'-tetramethyl-1,1'-spirobiindan (I) by Curtis. A mechanism is postulated to explain the formation of the 1,1'-spirobiindan system. The reactions of several polyalkylindenes with .alpha.-methylstyrene and triphenylcarbinol were investigated. Several new polyalkyl-1,1'-spirobiindans and a new polyalkylindeno[1,2-a]indene (II) were produced. Two of the 1,1'-spirobiindans investigated were synthesized by unequivocal methods. Cf. H., CA 23, 4461; B. and Beitchmen, CA 49, 13948i; A., et al., CA 54, 24584b; Curtis, CA 55, 1545d.

IT **105069-46-3**, 1,1'-Spirobiindan, 3,3-dimethyl-3',3'-diphenyl-
(prepn. of)

RN 105069-46-3 CAPLUS

CN 1,1'-Spirobi[1H-indene], 2,2',3,3'-tetrahydro-3,3-dimethyl-3',3'-diphenyl-
(9CI) (CA INDEX NAME)



L27 ANSWER 92 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1963:482121 CAPLUS

DN 59:82121

OREF 59:15225g-h,15226a-f

TI 2,4,7-Derivatives of fluorene

AU Schidlo, Wolfram; Sieglitz, Adolf

CS Tech. Hochschule, Munich, Germany

SO Ber. (1963), 96(19), 2595-600

DT Journal

LA Unavailable

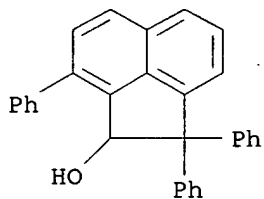
AB 4-Carbomethoxyfluorene (I) (11.2 g.) in 60 cc. propylene oxide (II) treated 3.5 hrs. with gaseous Cl and evapd. yielded 4.8 g. 2,7-di-Cl deriv. (III) of I, needles, m. 120-1.degree. (Me-OH). III (2.9 g.), 100 cc. AcOH, 20 cc. H₂O, and 7.5 cc. concd. H₂SO₄ refluxed 2.5 hrs., dild. with H₂O, and filtered yielded 2.3 g. 2,7-dichlorofluorene-4-carboxylic acid (IV, R = CO₂H) (IVa), needles, m. 262-3.degree. (AcOH). IVa (2.80 g.) and 16 g. Na₂Cr₂O₇ in 80 cc. AcOH refluxed 4 hrs., dild. with 500 cc. H₂O, cooled, and filtered gave 1.75 g. 2,7-dichlorofluorenone-4-carboxylic acid (V), lemon-yellow needles, m. 258-60.degree. (AcOH) (50% AcOH). Maleic anhydride (2.0 g.) in 120 cc. (CH₂Cl)₂ treated during 15 min. with 5.5 g. powd. AlCl₃, stirred 0.5 hr., decanted from a little AlCl₃, stirred 3 hrs. at room temp. and 1 hr. at 40.degree. with 4.7 g. 2,7-dichlorofluorene in 25 cc. (CH₂Cl)₂, kept at room temp. overnight, poured onto 50 g. ice and 10 cc. concd. HCl, and filtered yielded 0.8 g. 3-(2,7-dichlorofluorene-4-carbonyl)acrylic acid (VI), pale yellow crystals, m. 200-2.degree. (AcOH); the (CH₂Cl)₂ phase yielded 2.3 g. 2,7-dichlorofluorene. VI (0.33 g.) in 200 cc. 0.5N NaOH treated dropwise at room temp. with 0.4 g. KMnO₄ in 200 cc. H₂O, stirred 4 hrs., kept 2 days, filtered, and acidified with concd. HCl yielded V, deep yellow needles, m. 27-8.degree. (AcOH). IV (2.8 g.) and 70 cc. SOCl₂ refluxed 2 hrs. and evapd., the residue dissolved in 100 cc. Me₂CO and 100 cc. dioxane, and treated with 0.65 g. NaN₃ gave 1.7 g. acid azide, which was converted in the usual manner to 0.63 g. IV (R = NH₂) (VII), needles, m. 151-3.degree. (EtOH). 2,7-Dichlorofluorene (VIII) (9.4 g.), 60 cc. AcOH, and 9 cc. red fuming HNO₃ (d. 1.52) kept overnight and poured into H₂O yielded 21.6 g. IV (R = NO₂) (IX), pale yellow needles, m. 179-80.degree. (EtOH). IX (4.2 g.) in 300 cc. EtOH and 70 cc. H₂O treated with stirring with 3.5 g. CaCl₂ in a little H₂O and then in portions with 40 g. Zn dust, refluxed 3 hrs., and filtered hot, the residue boiled with 100 cc. EtOH, and the combined filtrates concd. to 200 cc. and cooled yielded 3.2 g. VII, pale yellow needles, m. 153-4.degree. (EtOH); N-Ac deriv., needles, m. 265-6.degree. (50% AcOH). Fluorene (25 g.) and a few crystals of iodine in 50 cc. CHCl₃ treated with 86 g. gaseous Cl gave 24.4 g. IV (R = Cl) (X), needles, m. 128-30.degree. (ligroine, b. 80-110.degree.). VIII (23.5 g.) in 120 cc. CHCl₃ treated with 14 g. Cl in the presence of iodine yielded similarly 9.5 g. X. 4-Chlorofluorene (0.5 g.) in 25 cc. II treated 3.5 hrs. with gaseous Cl also yielded X. VII (2.5 g.) in 250 cc. 80% AcOH and 20 cc. concd. HCl diazotized at 0-10.degree. with 2N NaNO₂, treated with urea, added dropwise to 3 g. CuCl in 20 cc. concd. HCl, stirred until warmed to room temp., refluxed 15 min., and extd. with 80 cc. C₆H₆, and the residue from the ext. repptd. from AcOH with H₂O yielded 0.8 g. X. X oxidized with Na₂Cr₂O₇ in AcOH yielded 52% 2,4,7trichlorofluorenone, (XI), golden-yellow needles, m. 178-9.degree. (AcOH); oxime m. 244.degree. (decompn.); phenylhydrazone m. 222.5.degree.. XI reduced with amalgamated Al gave the 9-OH deriv. of X, needles, m. 172.degree. (EtOH). X (5.4 g.) and 18 cc. red fuming HNO₃ refluxed 20 min. yielded 3.4 g. 5(?) -NO₂ deriv. of X, needles, m. 253.degree. (AcOH), which was reduced to the NH₂ analog, needles, m. 173.degree. (EtOH). X

was converted by the method described previously (CA 16, 1088) to the following XII (R, m.p., and crystal form given): H, 145-6.degree. (AcOH), pale yellow needles; Cl, 203.degree. (AcOH), yellow needles; MeO, 173-4.degree. (CHCl₃), yellow needles. 2,4,7-Trinitrofluorenone (2 g.) and 9 g. PCl₅ heated 7 hrs. at 200.degree. in a sealed tube gave 2,4,7,9,9-pentachlorofluorene (XIII), m. 123.5.degree. (MeOH). IX oxidized with Na₂Cr₂O₇ in AcOH yielded 2,7-dichloro-4-nitrofluorenone, canary-yellow needles, m. 187.degree. (AcOH), which heated 6 hrs. at 180.degree. with 2 parts PCl₅ yielded XIII. XIII refluxed 2 hrs. with 50% H₂SO₄ yielded 2,4,7-trichlorofluorenone. Fluorene-4-carboxylic acid (21 g.) was converted by the method of Smith, et al. (CA 52, 17230a) to 12 g. 4-aminofluorene, pale yellow needles, m. 115-16.degree., which was converted by the Sandmeyer reaction in 60% yield to 4-chloro-fluorene, m. 57-8.degree. (MeOH).

IT 96375-00-7, 1-Acenaphthenol, 2,2,8-triphenyl- 96376-75-9
, 1-Acenaphthenone, 2,2,8-triphenyl-
(prepn. of)

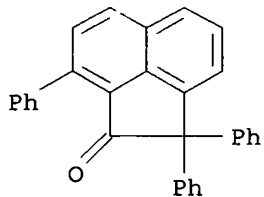
RN 96375-00-7 CAPLUS

CN 1-Acenaphthenol, 2,2,8-triphenyl- (7CI) (CA INDEX NAME)



RN 96376-75-9 CAPLUS

CN 1-Acenaphthenone, 2,2,8-triphenyl- (6CI, 7CI) (CA INDEX NAME)



L27 ANSWER 93 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1963:482120 CAPLUS

DN 59:82120

OREF 59:15225e-g

TI The reaction between acenaphthenequinone and phenyllithium

AU Crawford, H. Marjorie

CS Vassar Coll., Poughkeepsie, NY

SO J. Org. Chem. (1963), 28(11), 3082-4

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

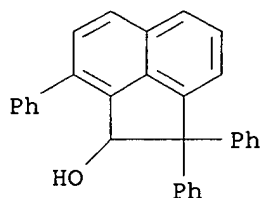
LA Unavailable

AB The reaction between acenaphthenequinone and PhLi gave the expected trans-1,2-diphenyl-1,2-acenaphthenediol in low yields, as well as 4 other solid products. Two of these were known compds. The structures of one of the other products (I) and of several new compds. related to it have been established. I is the result of the unusual 1,4-addn. of PhLi to an aryl ketone.

IT **96375-00-7**, 1-Acenaphthenol, 2,2,8-triphenyl- **96376-75-9**
 , 1-Acenaphthenone, 2,2,8-triphenyl-
 (prepn. of)

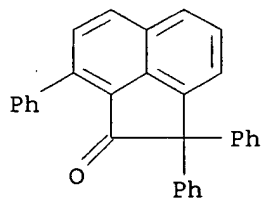
RN 96375-00-7 CAPLUS

CN 1-Acenaphthenol, 2,2,8-triphenyl- (7CI) (CA INDEX NAME)

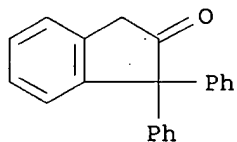


RN 96376-75-9 CAPLUS

CN 1-Acenaphthenone, 2,2,8-triphenyl- (6CI, 7CI) (CA INDEX NAME)

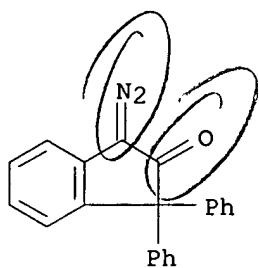


L27 ANSWER 94 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1963:475106 CAPLUS
 DN 59:75106
 OREF 59:13895b-c
 TI Anomalous reactions of a sterically hindered diazo ketone
 AU Schubert, H.; Bleichert, J.
 CS Martin-Luther Univ., HalleWittenberg, Germany
 SO Z. Chem. (1963), 3(9), 350-1
 DT Journal
 LA Unavailable
 AB Ph3CCOCHN2 (I), m. 161.5-5.5.degree. (decompn.) (from Ph3CCOCl with CH2N2) treated with 2N H2SO4 gave a compd. C21H16O (II), m. 127.5-8.5.degree.. I treated with AcOH-KOAc or with HI also yielded II, which is apparently identical with the 1,1-diphenyl-2-indanone prepd. by Wilds, et al. (CA 57, 3350c), from I with Et2O-BF3. I treated with 66% HBr yielded Ph3CCOCH2Br (III), m. 176-7.degree.. III with AcOH-KOAc yielded Ph3CCOCH2OAc, m. 137-8.degree.. It is assumed that the reactions of I are proton-catalyzed and that they proceed either with ring closure to the indanone or normally (depending on the nucleophilicity of the attacking reagent on the hindered, intermediate carbenium ion).
 IT 54193-73-6, 2-Indanone, 1,1-diphenyl-
 (formation from 3-diazo-1,1,1-triphenyl-2-propanone)
 RN 54193-73-6 CAPLUS
 CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



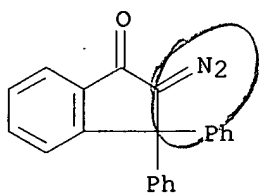
Same as # 25

L27 ANSWER 95 OF 110 CAPLUS COPYRIGHT 2003 ACS
 AN 1962:456067 CAPLUS
 DN 57:56067
 OREF 57:11117h-i,11118f-i,11119a
 TI Condensed cyclobutane aromatic compounds. XX. Photolysis of isomeric
 3,3-diphenyldiazoindanones
 AU Cava, M. P.; McConnell, D. G.; Muth, K.; Mitchell, M. J.
 CS Ohio State Univ., Columbus
 SO J. Org. Chem. (1962), 27, 1908-9
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA Unavailable
 AB cf. CA 52, 15482i; 57, 5853d. The required 1-diazo-3,3-diphenyl-2-
 indanone (I) was prep'd. by only a few modifications of the reported
 procedure (loc. cit.). K (7.4 g.) in 320 ml. MesCOH stirred (N atm.) 30
 min. with 25.0 g. 3,3-diphenyl-1-indanone and the soln. stirred 12 hrs. at
 20.degree. with 25 ml. BuONO, poured into a mixt. of 500 ml. Et2O and 2
 kg. crushed ice and the Et2O layer extd. repeatedly with 0.05N aq. NaOH,
 the exts. acidified with AcOH and the ppt. recrystd, from AcOH yielded 85%
 3,3-diphenyl-2-oximino-1-indanone (II), m. 198-207.degree.. II was
 converted to I as reported and was more easily purified by chromatography
 on neutral Al2O3 from 1:1 CH2Cl2-petr. ether than by recrystn. from C6H12.
 I (500 mg.) in 200 ml. Et2O and 200 ml. 1% aq. NaHCO3 stirred 12 hrs. in a
 glass flask under a Westinghouse 100-w. Hg spotlight without filter, the 2
 phases sepd. and subjected to several counterextns. with Et2O and aq.
 NaHCO3, the aq. exts. acidified with dil. HCl and the suspension extd.
 into Et2O, the ext. evapd. and the residue chromatographed from CH2Cl2 on
 acid Al2O3 gave 48% III, C21H16O2, m. 163-4.degree., instead of IV.
 Similar photolysis of 500 mg. 2-diazo-3,3-diphenyl-1-indanone gave 29%
 III. III (11.4 mg.) in 5.0 ml. MeOH hydrogenated with 9.5 mg. prereduced
 5% Pd-C 4 hrs. gave o-Ph2 CHC6H4CH2CO2H (V), m. 206-8.degree., also prep'd.
 from o-Ph2CHC6H4CO2H (VI). Hydrogenolysis of 147.3 mg.
 3,3-diphenylphthalide in 10 ml. abs. MeOH 2 hrs. with 43.2 mg. 5% Pd-C
 yielded 98% VI, m. 159-60.degree.. VI (3.38 millimoles) refluxed 2.5 hrs.
 with 3.5 millimoles SOCl2 in 25 ml. 1:1 C6H6-CH2Cl2 and the volatile
 materials evapd. in vacuo, the residue dild. with 25 ml. C2H2 and added
 dropwise with stirring to excess CH2N2 in cold dry Et2O, the oily residue
 on evapn. extd. with a min. of warm C6H6 and dild. with petr. ether to
 brief cloudiness gave 78% o-Ph2CHC6H4COCHN2 (VII), m. 114-16.degree.
 (C6H6-petr. ether). VII (100 mg.) in soln. irradiated 12 hrs. in a quartz
 vessel cooled by an air jet and the solvent evapd., the oily residue extd.
 into hot 5% aq. NaHCO3 and the ext. acidified with dil. HCl gave 13 mg. V.
 It was supposed that the initial process in formation of the lactone was
 ring contraction of the diazo ketone to IV, cleaved as the Na salt to an
 o-quinodimethane type intermediate, rearomatized by 1,4-addn. of H2O with
 formation of o-HOPh2CC6H4CH2CO2Na, converted by ring closure on
 acidification to III.
 IT 54964-80-6, 2-Indanone, 3-diazo-1,1-diphenyl- 97433-64-2
 , 1-Indanone, 2-diazo-3,3-diphenyl-
 (prepn. and photolysis of)
 RN 54964-80-6 CAPLUS
 CN 2H-Inden-2-one, 3-diazo-1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 97433-64-2 CAPLUS

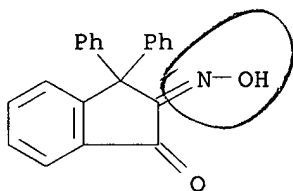
CN 1-Indanone, 2-diazo-3,3-diphenyl- (6CI, 7CI) (CA INDEX NAME)



IT **24283-27-0**, 1,2-Indandione, 3,3-diphenyl-, 2-oxime
(prepn. of)

RN 24283-27-0 CAPLUS

CN 1,2-Indandione, 3,3-diphenyl-, 2-oxime (7CI, 8CI) (CA INDEX NAME)



L27 ANSWER 96 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1962:416733 CAPLUS

DN 57:16733

OREF 57:3350b-h

TI Abnormal acids from the Arndt-Eistert synthesis

AU Wilds, Alfred L.; Berghe, John Van der; Winestock, Claire Hummel; Trebra, Richard L. Von; Woolsey, Neil F.

CS Univ. of Wisconsin, Madison

SO J. Am. Chem. Soc. (1962), 84, 1503-4

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

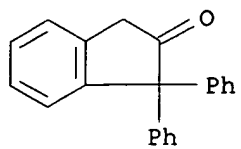
AB cf. CA 43, 4652g. $\text{Ph}_3\text{CCOCHN}_2$ (I, m. 162.5-4.5.degree.) failed to undergo normal rearrangement by $\text{Ag}_2\text{O-MeOH}$, $\text{AgOBzEt}_3\text{N-MeOH}$, or $\text{R}_3\text{N-ROH}$ (at 180.degree.) procedures and the product failed to give $\text{Ph}_3\text{CCH}_2\text{CO}_2\text{H}$ on hydrolysis. I treated with $\text{C}_5\text{H}_5\text{N-PhCH}_2\text{OH}$ at 110.degree. and the product hydrolyzed gave 40% o- $\text{Ph}_2\text{CHC}_6\text{H}_4\text{CO}_2\text{H}$ (II), m. 207.5-8.5.degree., also prep'd. from o- $\text{Ph}_2\text{CHC}_6\text{H}_4\text{CO}_2\text{H}$ by Arndt-Eistert synthesis and from I by a second sequence. I heated with BF_3 in Et_2O yielded 90-100% 1,1-diphenyl-2-indanone, m. 129.0-30.5.degree. (120.5-1.5.degree.), .lambda. 262, 267, 276, 303 m.mu. (.epsilon. 1720, 1850, 545, alc.), .lambda. 5.77 .mu. (CHCl_3), cleaved by KOH at 190.degree. to give II. I heated in $\text{C}_6\text{H}_5\text{NOH}$ with N-ethylmorpholine and the product hydrolyzed with alkali and esterified gave 35% of the abnormal ester, o- $\text{Ph}_2\text{CHC}_6\text{H}_4\text{CH}_2\text{CO}_2\text{Me}$, m. 79.5-80.5.degree., and 18% of a 2nd abnormal ester, m. 178.5-9.0.degree., .lambda. 281 m.mu. (.epsilon. 13400), nuclear magnetic resonance signals at 2.83, 3.73-4.68, 6.32, 6.57, 6.80-8.18 .tau. suggesting a dimeric structure. The conclusion that the failure of the Ph_3C group to migrate was partly due to steric factors was strengthened by results with 9-phenylfluorene-9-carbonyldiazomethane (III), m. 159-60.degree. (decompn.). After treatment in hot $\text{C}_6\text{H}_5\text{NOH}$ with N-ethylmorpholine [or (HOCH_2CH_2) $_3\text{N}$] followed by hydrolysis and esterification, III gave the normal ester, Me 9-phenyl-9-fluorenylacetate, m. 91.5-2.5.degree. [also produced from 9-phenyl-9-fluorenol and $\text{H}_2\text{C}(\text{CO}_2\text{H})_3$] and the abnormal ester, Me 9-phenylfluorenylacetate (IV), m. 100.6-1.4.degree., decarboxylated to 1-methyl-9-phenylfluorene, m. 153.0-3.5.degree.. $\text{Ph}_3\text{CCOCH}_2\text{CHN}_2$ heated m. gamma.-collidine with or without PhCH_2OH gave 1,1-diphenyl-3-methyl-2-indanone, m. 154.5-6.0.degree., but I did not give 1,1-diphenyl-2-indanone under similar conditions and the latter failed to give II either on direct alk. hydrolysis or subsequent longer heating with $\text{C}_6\text{H}_{11}\text{OH}$ and N-ethylmorpholine than for the rearrangement of I. Thus, the indanone seemed to be ruled out as an intermediate. In contrast to the failure of the Ph_3C group of I to migrate under thermal Wolff rearrangement conditions, Ph_3CCON_3 underwent normal Curtius rearrangement to the isocyanate, Ph_3CNCN , m. 92.5-3.0.degree., .lambda. 4.43 .mu. (KBr), so easily that the azide, m. 94.5-8.0.degree. (decompn.), .lambda. 4.69, 5.87, 4.43 .mu. (KBr), contained some isocyanate even when prep'd. and dried at 0.degree.. Ultraviolet light initiated rearrangement of I in tetrahydrofuran- H_2O gave the normal acid, $\text{Ph}_3\text{CCH}_2\text{CO}_2\text{H}$, and III gave the normal acid with no abnormal product isolable. Products from the Arndt-Eistert synthesis with .beta.-.lambda.-unsatd. acids should be exam'd. critically, particularly when steric hindrance is involved (Eglinton, et al., CA 48, 8802d).

IT 54193-73-6, 2-Indanone, 1,1-diphenyl-
(prepn. of)

RN 54193-73-6 CAPLUS

CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)

Same as #94



L27 ANSWER 97 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1961:117899 CAPLUS

DN 55:117899

OREF 55:22084a-c

TI Hydrogen transfer. XVI. Dihydrides of nitrogenous heterocycles as hydrogen donors

AU Braude, E. A.; Hannah, J.; Linstead, Reginald

CS Imp. Coll. Sci. Technol., London

SO J. Chem. Soc. (1960) 3249-57

DT Journal

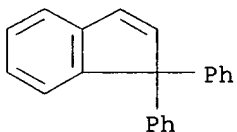
LA Unavailable

AB Adding 10 g. quinoline in 100 ml. anhyd. ether to a boiling soln. of 6 g. LiAlH_4 in 300 ml. anhyd. ether, refluxing 5 hrs., chilling to 0.degree., and decomp. the complex by H_2O yields a sludge, which after filtering and washing with 100 ml. ether and evapg. the filtrates gives 11 g. crude 1,2-dihydroquinoline (I), m. 47-52.degree.. After fractional distn. and recrystn. from hot degassed petroleum (b. 60-80.degree.), I m. 71-4.degree.. Adding 0.936 g. chloranil in 30 ml. dioxane to 0.5 g. I at room temp., evapg. the solvent, dissolving the residual oil in C_6H_6 , extg. with HCl to remove the basic material, and evapg. the C_6H_6 soln., yields 1.072 g. yellow-brown solid (II), m. 172-205.degree.. Dissolving II in 4N NaOH , adding excess HCl , and filtering yields 0.693 g. brown powder (III), m. 228-32.degree.. Continuous ether extn. of III yields 0.220 g. orange-red 2,5-dichloro-3,6-dihydroxy-1,4-benzoquinone, m. 282-4.degree..

IT **18636-52-7**, Indene, 1,1-diphenyl-
(prepn. of)

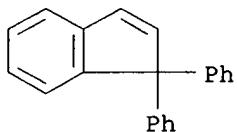
RN 18636-52-7 CAPLUS

CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



Same as #40

L27 ANSWER 98 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1961:117898 CAPLUS
DN 55:117898
OREF 55:22083i,22084a
TI Hydrogen transfer. XV. Synthesis and cyclodehydrogenation of
2-diphenylmethylstyrene
AU Brown, R. F.; Jackman, L. M.
CS Imp. Coll. Sci. Technol., London
SO J. Chem. Soc. (1960) 3144-7
DT Journal
LA Unavailable
AB Heating 10.9 g. 2-diphenylmethylphenethyl alc. and 25 g. NaOH at
260.degree. in vacuo 30 min., cooling, and extg. with hot C6H6 yields on
crystn. from MeOH 6.0 g. 2-di-phenylmethylstyrene (I), m. 76-7.degree..
Heating 2.70 g. I, 2.27 g. 2,3-dichloro-5,6-dicyano-1,4-benzoquinone, and
40 ml. C6H6 at 78.degree. 65 hrs., cooling, filtering to remove 1.6 g.
quinol, dilg. with petr. ether, sepg. the solids and crystg. from MeOH
yields 1.2 gl 1,1-diphenylindene, m. 91-2.degree..
IT **18636-52-7**, Indene, 1,1-diphenyl-
(prepn. of)
RN 18636-52-7 CAPLUS
CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



*Same as
#40*

L27 ANSWER 99 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1961:48596 CAPLUS

DN 55:48596

OREF 55:9359g-i,9360a-i

TI Electrophilic properties of ethyl 3-phenylindone-2-carboxylate

AU Koelsch, C. F.

CS Univ. of Minnesota, Minneapolis

SO J. Org. Chem. (1960), 25, 2088-91

CODEN: JOCEAH; ISSN: 0022-3263

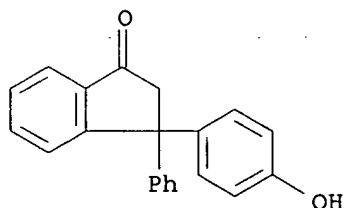
DT Journal

LA Unavailable

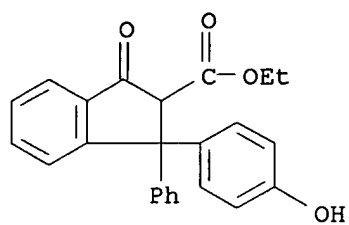
AB In spite of presumed steric hindrance and electronic deactivation, the 2,3-double bond in Et 3-phenylindone-2-carboxylate (I) was quite reactive. The compd. added amines or alcs. to give products stable only in basic soln., but it added many other types of active H compds. including HCN, MeNO₂, CH₂(CO₂Et)₂ (II), or Me₂CO to give relatively stable products. o-Benzoylbenzoylmalonic ester (37 g.) with 100 ml. 5% Na₂CO₃ refluxed 10 min., cooled, the soln. decanted, the product refluxed with 100 ml. H₂O, and dried in vacuo gave 26.5 g. I, m. 88-9.degree.. I (0.5 g.), 2 ml. H₂O, 0.2 g. NaCN, and a little alc. gave 0.5 g. 2-carbethoxy-3-cyano-3-phenylhydrindone, m. 99-101.degree., purple with alc. FeCl₃, Na salt difficultly sol. in 10% NaOH and not affected by refluxing 1 hr. I (1 g.), 3 ml. Me₂CO, and 10 ml. 10% KOH shaken 10 min., excess Me₂CO removed (the salt with PhMe became cryst.), and the salt in Et₂O shaken with cold HCl gave 1 g. 3-acetonyl-2-carbethoxy-3-phenylhydrindone (III), m. 96-9.degree., red-purple with alc. FeCl₃. III (2.7 g.) with 10 ml. 48% HBr refluxed 10 min. and evapd. gave 2.1 g. crude 3-acetonyl-3-phenylhydrindone, tan prisms, m. 95-6.degree. (EtOAc-ligroine). I (3 g.), 3 g. cyclohexanone, 6 ml. Me₃COH, and 10 ml. 10% NaOH shaken a few min., evapd. to dryness at 100.degree. in vacuo, treated with H₂O and Et₂O to give the Na salt, the salt dissolved in alc., and made slightly acidic gave 2 g. 2-carbethoxy-3-(2-cyclohexanonyl)-3-phenylhydrindone, plates, m. 126-36.degree., blue with alc. FeCl₃. I (3 g.) and 3 g. MeNO₂ in 6 ml. Me₃COH treated with 5 ml. 10% NaOH, cooled, acidified, and the product recrystd. gave 3 g. 2-carbethoxy-3-nitromethyl-3-phenylhydrindone, m. 105-7.degree., purple with FeCl₃. I (8.4 g.), 5 g. II in 10 Me₃COH, and 15 ml. 10% NaOH cooled, treated with Et₂O, then ice contg. 5 ml. H₂SO₄, the mixt. shaken 0.5 hr., the Et₂O layer washed, and evapd. gave 13.2 g. Et 2-carbethoxy-3-phenylhydrindone-3-malonate (IV), m. 89-91.degree. (alc.). IV (13 g.) with 50 ml. 48% HBr refluxed 2 hrs., evapd., the residue refluxed 1.5 hrs. with 25 ml. fresh HBr and 10 ml. AcOH, the mixt. evapd., the 9.4 g. gum heated at 185.degree. until gas evolution ceased, and crystd. gave 8.2 g. crude acid. The acid taken up in 40 ml. MeOH contg. 2 ml. H₂SO₄ and refluxed 1 hr. gave 7.6 g. Me 3-phenylhydrindone-3-acetate (V), b₁₅ 230-5.degree., m. 88-9.degree. (EtOAc-ligroine). Sapong. V by refluxing 5 min. with 2% KOH gave 3-phenylhydrindone-3-acetic acid, m. 91-2.degree., recrystd. from CH₂Cl₂, m. 128-30.degree.. I (0.5 g.) with 0.5 ml. NCCH₂CO₂Et treated overnight with 1 drop 50% KOH and acidified gave Et 2-carbethoxy-3-phenyl-3-cyanoacetate, m. 121-4.degree. (alc.), purple with FeCl₃. I (1 g.) refluxed 1 min. with 10 ml. 10% NaOH and 1 ml. 75% thioglycolic acid and acidified at 0.degree. gave 2-carbethoxy-3-phenylhydrindone-3-thioglycolic acid, m. 105.degree., purple color with FeCl₃, sol. in cold dil. NaHCO₃. KOH (0.5 g.) in 5 ml. PhOH was distd. to 2/3 vol., cooled, heated 0.5 min. to 160.degree. with 1 g. I, dild. with Et₂O, washed with dil. HCl, evapd., heated to 160.degree./10 mm., the residue dissolved in Et₂O, and extd. with 5% NaOH; this left 0.05 g. I and removed 1.2 g. phenolic material which crystd. to give Et 3-(p-hydroxyphenyl)-3-phenylhydrindone-2-carboxylate (VI), m.

155-60.degree., purple-red with FeCl₃. VI was easily hydrolyzed and decarboxylated but it was simpler to prep. 3-(p-hydroxyphenyl)-3-phenylhydrindone directly. KOH (1 g.) in 10 g. PhOH treated with 2 g. I and the mixt. refluxed 5 min. gave the latter product in 1.75-g. yield, m. 136-9.degree. (EtOAc-ligroine), no color with FeCl₃. With Me₂SO₄ in aq. NaOH, the phenol gave 3-(p-anisyl)-3-phenylhydrindone, prisms, m. 86-8.degree. (MeOH). p-Anisyl-diphenylchloromethane (22 g.) in 65 ml. C₆H₆ mixed with 20 g. ClHgCH₂CHO, the mixt. stirred 4 hrs. at room temp., then refluxed 2 hrs., H₂O added, the product refluxed 15 min. in 50 ml. Me₂CO with 10 g. KMnO₄, after an addnl. 45 min. the Me₂CO evapd., and replaced with Et₂O and dil. Na₂CO₃ gave from the aq. layer 8.6 g. .beta.-(p-anisyl)-.beta.,.beta.-diphenylpropionic acid (VII), plates, m. 156-7.degree. (dil. AcOH). VII with polyphosphoric acid gave only gummy products, but the desired cyclization was achieved as follows. Addn. of a drop of C₅H₅N to 1 g. VII and 5 ml. SOCl₂ initiated a reaction; the residue taken up in 5 ml. C₆H₆, treated 15 min. at room temp. with 1 g. AlCl₃, the mixt. neutralized, the neutral product kept some time with Et₂O-ligroine, and crystd. gave 20 mg. 3-(p-anisyl)-3-phenylhydrindone, m. 87-8.degree. (ligroine). I (1 g.) with 1.5 g. PhNH₂ refluxed 5 min. gave 1.1 g. 3-phenylindone-2-carboxanilide, red prisms, m. 178-9.degree., insol. in hot aq. NaOH. If refluxing I with PhNH₂ was prolonged to 10 min., part of the product was 3-phenylindone-2-carboxanilide anil, yellow needles, m. 217-18.degree. (BuOH). The anil with HCl in alc. deposited the anilide. The anilide (1 g.) in 7 ml. alc. treated with 0.5 g. NaCN in a little H₂O gave 1 g. 3-cyano-3-phenylhydrindone-2-carboxanilide, tan prisms, m. 157-9.degree. (alc.). purplish red FeCl₃ test. I (2.5 g.) in 10 ml. C₆H₆ treated with 6 ml. 2N PhMgBr and the product treated with dil. HCl gave 2.9 g. tan oil, which could not be crystd. This was treated with 10 ml. 20% MeOH-KOH to give the K salt, which washed, dissolved in H₂O, and acidified gave 1,3-diphenyl-1-hydroxyindene-2-carboxylic acid (VIII), m. 163-4.degree. (dil. alc.). VIII (0.5 g.) in 5 ml. AcOH and 1 ml. AcCl treated with 0.5 g. Zn dust under reflux 10 min., H₂O added, and the Et₂O soln. extd. with dil. Na₂CO₃ gave 50 mg. 1,3-diphenylindene-2-carboxylic acid (IX), yellow needles, m. 195-6.degree. (AcOH). IX, synthesized by refluxing 2 g. 1,3-diphenylindene with 2 ml. (COCl)₂ 1 hr. m. 173-81.degree.; this in dil. Na₂CO₃ warmed with 3 ml. 3% H₂O₂ and repptd. gave IX.

IT **102242-25-1**, 1-Indanone, 3-(p-hydroxyphenyl)-3-phenyl-
102663-96-7, 2-Indancarboxylic acid, 1-(p-hydroxyphenyl)-3-oxo-1-phenyl-, ethyl ester **102705-84-0**, 1-Indanone, 3-(p-methoxyphenyl)-3-phenyl- (prepn. of)
 RN 102242-25-1 CAPLUS
 CN 1-Indanone, 3-(p-hydroxyphenyl)-3-phenyl- (6CI) (CA INDEX NAME)

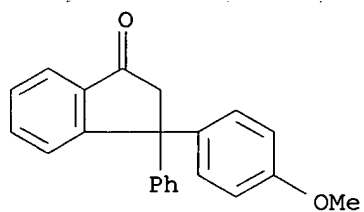


RN 102663-96-7 CAPLUS
 CN 2-Indancarboxylic acid, 1-(p-hydroxyphenyl)-3-oxo-1-phenyl-, ethyl ester (6CI) (CA INDEX NAME)



RN 102705-84-0 CAPLUS

CN 1-Indanone, 3-(p-methoxyphenyl)-3-phenyl- (6CI) (CA INDEX NAME)



L27 ANSWER 100 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1961:22720 CAPLUS

DN 55:22720

OREF 55:4479b-f

TI Action of Grignard reagents on heterocyclic compounds. III. Action of arylmagnesium halides on 2-phenyl-4-benzylidene-2-imidazolin-5-one

AU Awad, Wm. Ibrahim; Allah, Abd Elaziz Ali Gad

CS A'in Shams Univ., Cairo

SO J. Org. Chem. (1960), 25, 1242-3

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

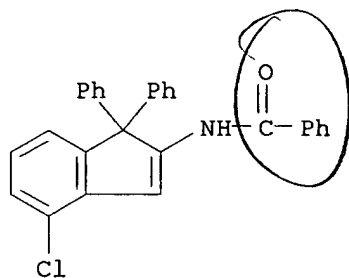
LA Unavailable

AB Mustafa and Harhash (CA 51, 3569b) on treatment of $\text{NH.CPh:N.C(:CHR).CO}$ (I) ($R = \text{Ph}$) (II) with Me- and PhMg halides obtained products believed to be $\text{NH.CPh:N.C(:CHR).CR'OH}$, where $R = \text{Ph}$, $R' = \text{Me}$ and $R = R' = \text{Ph}$, resp. The action of Ph- and ClO_7Mg halides on II and I ($R = 4\text{-MeOC}_6\text{H}_4$) (III) was investigated and compds. of the structure $\text{NH.CPh:N.CH(CRR')}.CO$ (IV) were believed to have formed by a 1,4-addn. followed by ketonization. II (2 g.) in 50 ml. dry C_6H_6 added to PhMgBr soln. (from 3.8 g. PhBr and 0.72 g. in Et_2O) and the reaction carried out as described by M. and H. (loc. cit.) gave 0.5 g. IV ($R = R' = \text{Ph}$), m. $220\text{-}1^\circ$. (C_6H_6). II (2 g.) in 50 ml. dry C_6H_6 added to 1- ClO_7MgBr soln. (from 5 g. 1- ClO_7Br and 0.72 g. Mg in Et_2O) and the mixt. worked up as usual gave 0.5 g. IV ($R = 1\text{-ClO}_7$, $R' = \text{Ph}$), m. $218\text{-}19^\circ$. (C_6H_6). $\text{BzNHCH}_2\text{CO}_2\text{H}$ (9 g.) and 4.9 g. fused NaOAc was mixed with 5.3 g. Ac_2O and 13.7 g. 4- $\text{MeOC}_6\text{H}_4\text{CHO}$, the mixt. heated 30 min. on a H_2O bath, the ppt. (V) filtered off, and washed with hot H_2O and a little EtOH . V (40 g.), 100 ml. H_2O , 200 ml. EtOH , and 20 g. concd. aq. NH_3 refluxed until soln. occurred, the soln. treated with 20 ml. concd. aq. NH_3 and 20 g. K_2CO_3 , refluxed 1 hr. more (during which time more aq. NH_3 was added), the ppt. filtered off, and washed with hot H_2O , EtOH , and C_6H_6 gave 30 g. III, m. $285\text{-}6^\circ$. (AcOH). III (2 g.) in 50 ml. dry C_6H_6 added to PhMgBr soln. (from 3.4 g. PhBr and 0.72 Mg in Et_2O) and the mixt. worked up as usual gave 0.5 g. IV ($R = 4\text{-MeOC}_6\text{H}_4$, $R' = \text{Ph}$), m. $203\text{-}4^\circ$. (C_6H_6). Similarly, 2 g. III in 50 ml. dry C_6H_6 added to 1- ClO_7MgBr soln. (from 5 g. 1- ClO_7Br and 0.72 Mg in Et_2O) gave 0.5 g. IV ($R = 4\text{-MeOC}_6\text{H}_4$, $R' = 1\text{-ClO}_7$), m. $239\text{-}40^\circ$. (C_6H_6).

IT 103278-05-3, Benzamide, N-(4-chloro-1,1-diphenylinden-2-yl)- (prepn. of)

RN 103278-05-3 CAPLUS

CN Benzamide, N-(4-chloro-1,1-diphenylinden-2-yl)- (6CI) (CA INDEX NAME)



L27 ANSWER 101 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1961:22719 CAPLUS

DN 55:22719

OREF 55:4478e-i,4479a-b

TI Action of Grignard reagents on heterocyclic compounds. II. Action of Grignard reagents on some substituted unsaturated azlactones

AU Awad, Wm. Ibrahim; Hafez, Mohamed Shawkey

CS A'in Shams Univ., Cairo

SO J. Org. Chem. (1960), 25, 1183-5

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA Unavailable

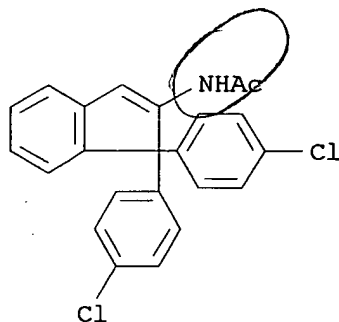
AB A study was made to show the effect of substitution in the benzylidene radical, in the Grignard reagent used, or in the group attached in the 2-position of the oxazolone ring on the course of the reaction of some unsatd. azlactones, $O.CR':N.C(:CHR).CO$ (I), with various Grignard reagents. $PhMgBr$, $p-ClC_6H_4MgBr$, or $o-MeOC_6H_4MgBr$ allowed to react with the I ($R = R' = Ph$; $R = p-MeOC_6H_4$, $R' = Ph$; $R = o-ClC_6H_4$, $R' = Ph$; and $R = Ph$, $R' = Me$) gave predominantly carbinols, $RCH:C(NHCOR')CR''2OH$ (II). When $p-MeOC_6H_4MgBr$ was used, the main product was the corresponding oxazoline, $O.CR:N.C(:CHR').CR''2$ (III). Method A. The I (1 mole) in Et_2O added to 3 moles arylmagnesium halide in Et_2O , the mixt. refluxed 2 hrs., kept overnight, hydrolyzed with satd. aq. NH_4Cl , the org. layer sepd., dried, evapd., the oily residue triturated with petr. ether or $MeOH$, and allowed to cool gave the following II (R , R' , R'' , m.p., and % yield given): Ph , Ph , $p-ClC_6H_4$, 193.degree., 65; Ph , Ph , $o-MeOC_6H_4$, 180.degree. (C_6H_6), 68; $p-MeOC_6H_4$, Ph , Ph , 149.degree. (C_6H_6), 72; $p-MeOC_6H_4$, Ph , $p-ClC_6H_4$, 175.degree. (petr. ether), 64; $p-MeOC_6H_4$, Ph , $p-MeOC_6H_4$, 176.degree. (C_6H_6 -petr. ether), 65; $o-ClC_6H_4$, Ph , Ph , 142.degree. (C_6H_6 -petr. ether), 67; $o-ClC_6H_4$, Ph , $p-ClC_6H_4$, 172.degree. (C_6H_6 -petr. ether), 65; Ph , Me , $p-ClC_6H_4$, 178.degree. (petr. ether), 68; Ph , Me , $o-MeOC_6H_4$, 170.degree. (C_6H_6 -petr. ether), 66. Method B. The II (1.0 g.) refluxed 3 hrs. with 50 ml. Ac_2O and 0.5 g. fused $NaOAc$, the mixt. poured on ice while hot, and kept overnight gave the III. The following III were obtained (R , R' , R'' , method of prepn., m.p., and % yield given): Ph , Ph , $p-MeOC_6H_4$, A, 183.degree. (petr. ether), 68; $p-MeOC_6H_4$, Ph , $p-MeOC_6H_4$, A, 146.degree. (C_6H_6 -petr. ether), 71; $o-ClC_6H_4$, Ph , $p-MeOC_6H_4$, A, 173.degree. (C_6H_6 -petr. ether), 65; Ph , Me , $p-ClC_6H_4$, B, 167.degree. ($MeOH$), 73; Ph , Me , $o-MeOC_6H_4$, B, 161.degree. (petr. ether), 66. HCl (d. 1.18) (10 ml.) added to 1.0 g. II or III in 20 ml. $AcOH$, the mixt. warmed on a H_2O bath, and the soln. kept 30 min. at room temp. gave the following indene derivs., $CR_2.C(NHCOR'):CH.C:C.CH:CR'''.CH:CR''''$ (R , R' , R'' , R''' , m.p., and % yield given): $p-ClC_6H_4$, Ph , H , H , 209.degree. (petr. ether), 75; $o-MeOC_6H_4$, Ph , H , H , 195.degree. (petr. ether), 55; $p-MeOC_6H_4$, Ph , H , H , 199.degree. (petr. ether), 78; $p-ClC_6H_4$, Me , H , H , 202.degree. (petr. ether), 75; $o-MeOC_6H_4$, Me , H , H , 134.degree. ($MeOH$), 59; Ph , Ph , OMe , H , 196.degree. (C_6H_6), 84; $p-ClC_6H_4$, Ph , OMe , H , 195.degree. (petr. ether), 77; $p-MeOC_6H_4$, Ph , OMe , H , 188.degree. (C_6H_6 -petr. ether), 73; Ph , Ph , H , Cl , 165.degree. ($MeOH$), 81; $p-ClC_6H_4$, Ph , H , Cl , 218.degree. (C_6H_6 -petr. ether), 76; $p-MeOC_6H_4$, Ph , H , Cl , 189.degree. (C_6H_6 -petr. ether), 79.

IT 102545-57-3, Acetamide, N-[1,1-bis(p-chlorophenyl)inden-2-yl]-
 102594-09-2, Acetamide, N-1,1-diphenylinden-2-yl-
 103164-62-1, Benzamide, N-[4-chloro-1,1-bis(p-methoxyphenyl)inden-2-yl]- 103165-82-8, Benzamide, N-[1,1-bis(p-chlorophenyl)-6-methoxyinden-2-yl]- 103277-85-6, Benzamide, N-[1,1-bis(p-chlorophenyl)inden-2-yl]- 103278-05-3, Benzamide, N-(4-chloro-1,1-diphenylinden-2-yl)- 113863-22-2, Acetamide, N-[1,1-bis(o-methoxyphenyl)inden-2-yl]- 115099-38-2, Benzamide,

N-(6-methoxy-1,1-diphenylinden-2-yl)- **115292-07-4**, Benzamide,
 N-[4-chloro-1,1-bis(p-chlorophenyl)inden-2-yl]- **115485-55-7**,
 Benzamide, N-[6-methoxy-1,1-bis(p-methoxyphenyl)inden-2-yl]-
116378-26-8, Benzamide, N-[1,1-bis(p-methoxyphenyl)inden-2-yl]-
116378-42-8, Benzamide, N-[1,1-bis(o-methoxyphenyl)inden-2-yl]-
 (prepn. of)

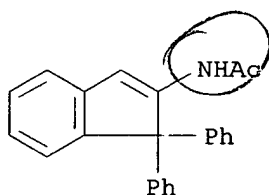
RN 102545-57-3 CAPLUS

CN Acetamide, N-[1,1-bis(p-chlorophenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



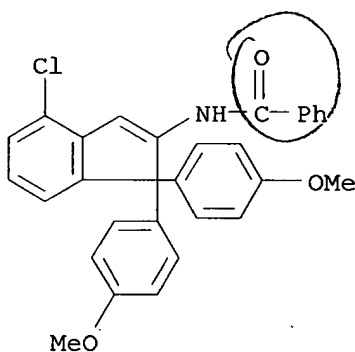
RN 102594-09-2 CAPLUS

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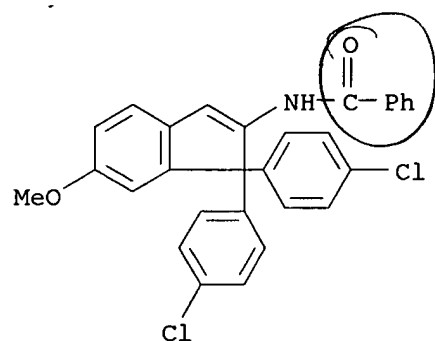
RN 103164-62-1 CAPLUS

CN Benzamide, N-[4-chloro-1,1-bis(p-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



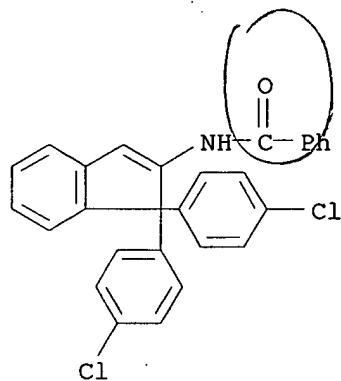
RN 103165-82-8 CAPLUS

CN Benzamide, N-[1,1-bis(p-chlorophenyl)-6-methoxyinden-2-yl]- (6CI) (CA INDEX NAME)



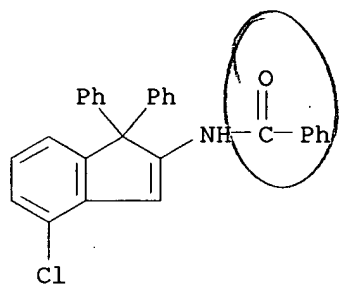
RN 103277-85-6 CAPLUS

CN Benzamide, N-[1,1-bis(p-chlorophenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



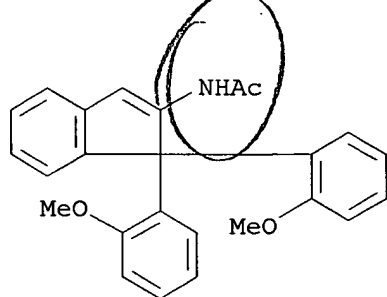
RN 103278-05-3 CAPLUS

CN Benzamide, N-(4-chloro-1,1-diphenylinden-2-yl)- (6CI) (CA INDEX NAME)



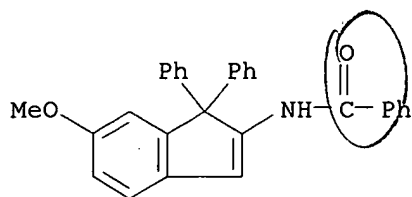
RN 113863-22-2 CAPLUS

CN Acetamide, N-[1,1-bis(o-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



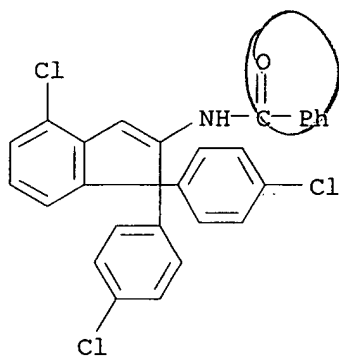
RN 115099-38-2 CAPLUS

CN Benzamide, N-(6-methoxy-1,1-diphenylinden-2-yl)- (6CI) (CA INDEX NAME)



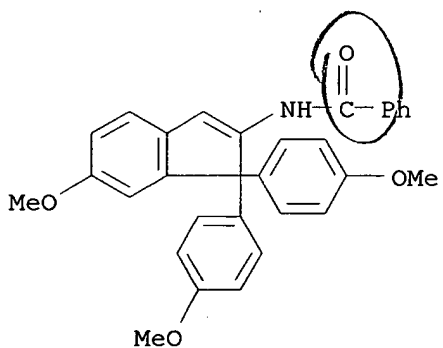
RN 115292-07-4 CAPLUS

CN Benzamide, N-[4-chloro-1,1-bis(p-chlorophenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



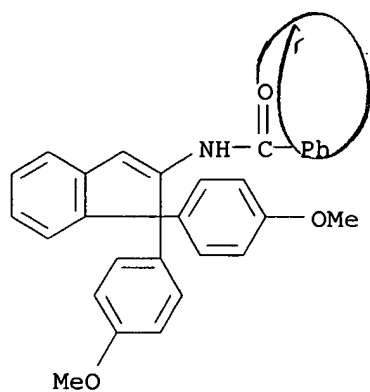
RN 115485-55-7 CAPLUS

CN Benzamide, N-[6-methoxy-1,1-bis(p-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



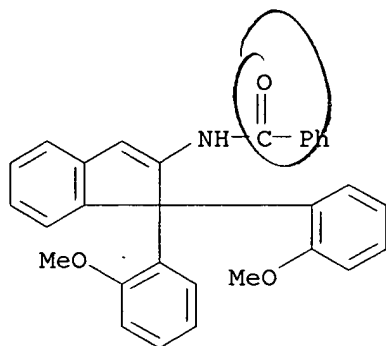
RN 116378-26-8 CAPLUS

CN Benzamide, N-[1,1-bis(p-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



RN 116378-42-8 CAPLUS

CN Benzamide, N-[1,1-bis(o-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



L27 ANSWER 102 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1961:22718 CAPLUS

DN 55:22718

OREF 55:4477h-i,4478a-e

TI Action of Grignard reagents on heterocyclic compounds. I. Action of Grignard reagents on unsaturated azlactones

AU Awad, Wm. Ibrahim; Hafez, Mohamed Shawkey

CS A'in Shams Univ., Cairo

SO J. Org. Chem. (1960), 25, 1180-2

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA Unavailable

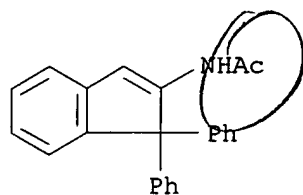
AB PhMgBr reacted with O.CR':N.C(:CHR).CO (I) to give carbinols, PhCH:C(NHCOR)CPh₂OH (II), and, in some cases, the corresponding oxazolines, O.CR:N.C(:CHPh).CPh₂ (III). The III were also obtained from the corresponding II by treatment with Ac₂O-NaOAc. The II and the III were transformed by concd. HCl-AcOH into substituted indenenes, CPh₂.C(NHCOR):CH.C:C.CH:CH.CH:CH (IV). The constitution of the products was discussed. I (R' = R = Ph) (12.5 g.) in 70 ml. Et₂O added to PhMgBr soln. (from 3.65 g. Mg and 23.6 g. PhBr in 50 ml. Et₂O), the mixt. refluxed 2 hrs., kept overnight, hydrolyzed with satd. aq. NH₄Cl, dried, evapd., the residue triturated with 50 ml. EtOH, and allowed to cool gave 11.95 g. II (R = Ph), m. 165.degree.; the mother liquor treated with a little H₂O and kept overnight gave 1.35 g. III (R = Ph), m. 176.degree. (EtOH). HCl (d. 1.18) (10 ml.) added to 1.0 g. II (R = Ph) in 20 ml. AcOH, the mixt. warmed 2 min. on a H₂O bath, and kept 30 min. at room temp. gave 0.9 g. IV (R = Ph), m. 186.degree. (C₆H₆-petr. ether). II (R = Ph) (1.0 g.) refluxed 30 min. with 50 ml. AcOH or HCO₂H, the soln. concd. to 10 ml., and allowed to cool gave 0.81 g. IV (R = Ph) (from AcOH) and 0.88 g. IV (R = Ph) (from HCO₂H). P₂O₅ (2 g.) added to 1.0 g. II (R = Ph) in 50 ml. anhyd. C₆H₆, the mixt. refluxed 30 min., filtered, and the filtrate concd. gave 0.84 g. IV (R = Ph). II (R = Ph) (4 g.) refluxed 3 hrs. with 200 ml. Ac₂O and 2.0 g. fused NaOAc, the mixt. poured on ice while hot, kept overnight, the ppt. warmed with 50 ml. EtOH, and the product which sepd. filtered off gave 0.45 g. III (R = Ph) m. 176.degree. (EtOH); the mother liquor treated with a little H₂O, kept overnight, the ppt. (2.7 g.) chromatographed on Al₂O₃, and eluted with Et₂O gave IV (R = Me), m. 185.degree. (petr. ether); the acidic aq. layer extd. several times with Et₂O yielded 0.9 g. BzOH. A stream of O₃-O passed through 2 g. IV (R = Ph) in 100 ml. CHCl₃ 15 min., the mixt. hydrolyzed with H₂O, the CHCl₃ layer extd. with dil. aq. Na₂CO₃, washed with H₂O, and concd. gave an unidentified solid, m. above 300.degree.; acidification of the Na₂CO₃ ext. gave BzOH. IV (R = Ph) (0.5 g.), 0.3 g. HgSO₄, and 4 ml. concd. H₂SO₄ heated 10 min. at 250.degree. (bath temp.) in a metal bath and 50 min. at 300-10.degree. (bath temp.) gave o-C₆H₄(CO)₂O. I (R' = Me, R = Ph) (9.35 g.) in 70 ml. Et₂O added to PhMgBr soln. (from 3.65 g. Mg and 23.6 g. PhBr in 50 ml. C₆H₆), the mixt. treated as above, the oily residue triturated with petr. ether, and allowed to cool gave 10.5 g. II (R = Me), m. 147.degree. (C₆H₆). HCl (d. 1.18) (10 ml.) added to 1.0 g. II (R = Me) in 20 ml. AcOH and the mixt. treated as above gave 0.91 g. IV (R = Me), m. 185.degree. (petr. ether). II (R = Me) (1.0 g.) refluxed 3 hrs. with 50 ml. Ac₂O and 0.5 g. fused NaOAc, the mixt. poured on ice while hot, and kept overnight gave 0.85 g. IV (R = Me), m. 97.degree. (EtOH). III (R = Me) treated with concd. HCl-AcOH as above gave IV (R = Me).

IT 102594-09-2, Acetamide, N-1,1-diphenylinden-2-yl-

115000-09-4, Benzamide, N-1,1-diphenylinden-2-yl-
(prepn. of)

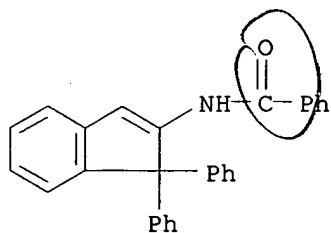
RN 102594-09-2 CAPLUS

CN Acetamide, N-1,1-diphenylinden-2-yl- (6CI) (CA INDEX NAME)



RN 115000-09-4 CAPLUS

CN Benzamide, N-1,1-diphenylinden-2-yl- (6CI) (CA INDEX NAME)



L27 ANSWER 103 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1960:103318 CAPLUS

DN 54:103318

OREF 54:19611f-i,19612a-f

TI Acenaphthene chemistry. VI. Preparation and reactions of some pyracene glycols

AU Richter, Henry J.; Feist, Wm. C.

CS Univ. of Colorado, Boulder

SO J. Org. Chem. (1960), 25, 356-8

CODEN: JOCEAH; ISSN: 0022-3263

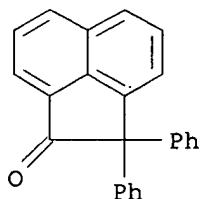
DT Journal

LA Unavailable

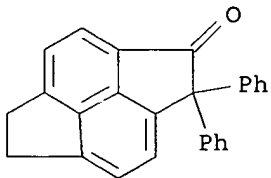
AB cf. CA 54, 10973d. With highly purified (COBr)₂ and tech. AlBr₃ was prepd. 8-10% I (loc. cit.). With naphthalene instead of acenaphthene under the identical reaction conditions, only 75% 1-C₁₀H₇CO₂H was obtained. trans-II (R = Ph) (IIa) was prepd. in 38% yield by R. and S. (loc. cit.), but an improved prepn. was as follows: I (1.50 g.) added portionwise to PhMgBr (from 5.4 g. PhBr and 0.85 g. Mg in 100 ml. abs. Et₂O) (a vigorous reaction occurred), the soln. dild. with 100 ml. abs. Et₂O, refluxed 2 hrs., poured into iced AcOH, the Et₂O layer sepd., the aq. AcOH layer extd. twice with Et₂O, the combined Et₂O solns. washed with 10% Na₂CO₃ and H₂O, dried, filtered, evapd. in vacuo, and the product (2.5 g.) crystd. from EtOH-H₂O with C gave 1.85 g. IIa, m. 179-81.degree.. IIa (0.5 g.) treated with 30 ml. 47% aq. HI at room temp. with stirring, the mixt. warmed 1 hr. on a steam bath, treated with 10 ml. AcOH, warmed 1 hr. on a steam bath, poured into aq. NaHSO₃, and the ppt. (0.45 g.) filtered off and crystd. from Me₂CO-EtOH-H₂O gave 0.3 g. III, m. 226-7.degree.. III (0.0005 mole) in abs. EtOH absorbed 0.0005 mole H over 10% Pd-C at 1 atm. pressure and room temp. to give 0.180 g. 1,2-diphenylpyracene, m. 197-8.5.degree.. 1,2 - Diphenyl - 1,2-acenaphthenediol (IV) (0.5 g.) treated similarly with 47% aq. HI gave 0.35 g. 1,2-diphenylacenaphthylene (V), m. 162-3.degree.; both III and V gave a deep blue color with concd. H₂SO₄. V (0.0064 mole) in abs. EtOH absorbed 0.0067 mole H over 10% Pd-C at 1 atm. pressure and room temp. to give 98% 1,2-diphenylacenaphthene, m. 146-7.degree.. III like V was very stable even at its m.p. IIa in CHCl₃ treated with anhyd. HCl at 0.degree. gave a mixt. of products, which did not contain Cl and was not characterized further. IIa (0.5 g.) added in 1 portion to 250 ml. AcOH contg. 2.5 g. iodine, the soln. refluxed 30 min., cooled, poured into aq. SO₂, the ppt. (0.45 g.) collected, and crystd. from EtOH-H₂O with C gave 0.35 g. VI (R = Ph), m. 191-2% .nu. 1710 and 1682 cm.⁻¹ When the pinacol rearrangement was carried out on IIa according to Beschke, et al. (CA 4, 912) using boiling AcOH and concd. HCl, a black product was formed from which only 30% crude VI (R = Ph) and 10% impure III could be isolated by crystn. from EtOH-H₂O, followed by chromatographic sepn. on Al₂O₃. IV rearranged similarly, using AcOH and concd. HCl, gave 85% 2,2-diphenylacenaphthen-1-one, m. 172-3.degree.. To 1 g. I in 150 ml. EtOH was added 0.5 g. NaBH₄ in 1 portion, the mixt. stirred 2 hrs. at room temp., after adding 0.1 g. NaBH₄, stirred 20 min., decompd. by adding dropwise 10% HCl, followed by 300 ml. H₂O, and the ppt (0.52 g.) filtered off and crystd. from EtOH to give 40% cis-II (R = H) (VII), m. 264-5.degree. (decompn.); the filtrate from the prepn. of VII satd. with salt, extd. exhaustively with Et₂O, the ext. dried, evapd. in vacuo, and the residue (0.5 g.) crystd. from 400 ml. H₂O gave 35% trans-II (R = H), m. 188-9.degree.. VII (0.2 g.) suspended in 5 ml. Me₂CO-HCl soln., mixed with 0.1 g. anhyd. Na₂SO₄, the mixt. kept 14 hrs. at room temp., the resulting soln. filtered, and the filtrate evapd. gave 0.2 g. 1,2-isopropylidenedioxypyracene, m. 164-5.degree. [petr. ether (b. 40-50.degree.)]. VII treated similarly with Me₂CO-HCl was recovered

unchanged. Acenaphthenequinone reduced as above with NaBH₄ (instantaneous reaction) gave quant. a 1:1 mixt. (VIII) of cis- and trans-acenaphthenediols, although sepn. proved more difficult. A mixt. of trans-II (R = H) and VII (0.2 g.) subjected to the conditions of the pinacol rearrangement with AcOH and iodine (Bachmann and Chu, CA 30, 59749), the mixt. poured into aq. SO₂ the ppt. (0.2 g.) filtered off, treated with hot EtOH (approx. 1/2 the ppt. dissolved), the soln. treated with C, filtered, and the filtrate cooled gave 0.08 g. VI (R = H), m. 180-1.degree., .nu. 1670 and 1715 cm.⁻¹ VII treated similarly gave no isolable 1-acenaphthenone.

IT 85925-12-8, 1-Acenaphthenone, 2,2-diphenyl- 122447-91-0,
Cyclopent[fg]acenaphthylen-1(2H)-one, 5,6-dihydro-2,2-diphenyl-
(prepn. of)
RN 85925-12-8 CAPLUS
CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



RN 122447-91-0 CAPLUS
CN Cyclopent[fg]acenaphthylen-1(2H)-one, 5,6-dihydro-2,2-diphenyl- (6CI) (CA INDEX NAME)



L27 ANSWER 104 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1960:56251 CAPLUS

DN 54:56251

OREF 54:10947f-i

TI Reductive cleavage of ketones by lithiumaluminum hydride in pyridine solution

AU Lansbury, P. T.

CS Univ. of Buffalo, Buffalo, NY

SO Chem. & Ind. (London) (1960) 151

DT Journal

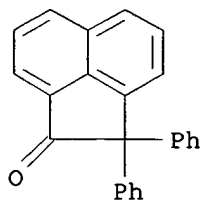
LA Unavailable

AB Certain tetraarylpinacolones were reduced rapidly to triarylmethanes and PhCH₂OH by the action of excess LiAlH₄ in C₅H₅N at room temp. BzCPh₃ (I) required about 2 hrs. to cleave completely; in 5 min. workup, the blood-red reaction mixt. gave roughly equal amts. of Ph₃CH and Ph₃CCPhOH (II), but no I, thus cleavage did not occur simultaneously with the addn. of LiAlH₄ to the C:O group. (p-PhC₆H₄)₂CPhBz gave (p-PhC₆H₄)₂CHPh quant. in 5 min.; (p-MeOC₆H₄)₂CPhBz gave a red soln., but after 18 hrs. only (p-MeOC₆H₄)₂CHPhOH was isolated; 9-benzoyl-9-phenylfluorene gave exclusively 9-phenylfluorene after 15 min. Cyclic tetraarylpinacolones, such as 2,2-diphenyl-1-acenaphthenone and 10,10-diphenyl-9-phenanthrone were reduced without cleavage to give, after acid dehydration of the carbinols, 1,2-diphenylacenaphthene and 9,10-diphenylphenanthrene, resp. The fact that II was cleaved to the same products as I eliminated the possibility that ketone cleavage was induced by the anion of dihydropyridine (Haller-Bauer reaction). The function of C₅H₅N appeared to be coordination of AlH₃ liberated when AlH₄⁻ attacks the C:O group, thus providing a "free" alkoxide ion, which decompd., eliminating Ph₃C⁻. Et₂O was not sufficiently basic, and gave no cleavage. Support for the role of C₅H₅N as a donor mol. came from the fact that I gave only II, when 2-tert-butylpyridine was used as the solvent.

IT 85925-12-8, 1-Acenaphthenone, 2,2-diphenyl-
(redn. of)

RN 85925-12-8 CAPLUS

CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 105 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1959:89424 CAPLUS

DN 53:89424

OREF 53:16126b-i,16127a-c

TI peri-Substituted naphthalenes. I. New rearrangement reactions of substituted naphthopyrans

AU Letsinger, Robert L.; Lansbury, Peter T.

CS Northwestern Univ., Evanston, IL

SO J. Am. Chem. Soc. (1959), 81, 935-9

CODEN: JACSAT; ISSN: 0002-7863

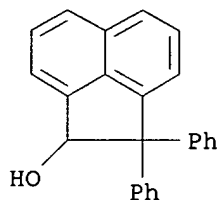
DT Journal

LA Unavailable

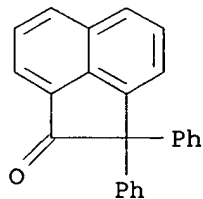
AB The effect of acids on 1-hydroxy-3,3-diphenyl-1H,3H-naphtho[1,8-c,d]pyran (I) leading by a 1,5-H shift to 8-Ph₂CHC₁₀H₆CO₂H (II) and on the 1-methylene analog (III) of I leading to 3,3-diphenyl-2,3-dihydro-1H-benzonaphthen-1-one (IV) was investigated. 1,8-Bis(phenylhydroxymethyl)naphthalene (V) was dehydrated in the presence of acids without rearrangement to VI. The yields in all 3 reactions were close to 100%. 1,8-C₁₀H₈Bz₂ (2.10 g.) reduced during 20 hrs. with 0.24 g. LiAlH₄ in 150 cc. Et₂O by the Soxhlet technique and worked up in the usual manner yielded 2.00 g. V, m. 199-200.degree. (80% EtOH). 3,3-Diphenyl-1,8-naphthalide (VII) (3.4 g.) in 100 cc. dry tetrahydrofuran gradually added during 15 min. with stirring to 1 g. LiAlH₄ in 50 cc. tetrahydrofuran, refluxed 1 hr., and recrystd. from petr. ether gave 2.6 g. I, m. 166-7.5.degree.. VII (5.0 g.) added to MeMgI from 1.2 g. Mg and 7.2 g. MeI in 150 cc. Et₂O, refluxed 7 hrs. with stirring, hydrolyzed with cold dil. H₂SO₄, and the Et₂O layer worked up yielded 3.5 g. III, m. 227.5-29.degree. (dioxane-EtOH). V (0.50 g.), 0.40 g. p-MeC₆H₄SO₃H, and 30 cc. 90% HCO₂H heated 2 days on the steam bath and filtered yielded 0.45 g. VI, m. 201.5-202.degree. (EtOH-Me₂CO). V (0.50 g.) added to 0.87 g. PBr₃ in 50 cc. C₆H₆ at 70.degree., kept 2 hrs. at 55.degree., cooled, washed with 5% aq. NaHCO₄, dried, and evapd. yielded 0.40 g. VI, m. 202.degree. (CHCl₃-hexane). VI (0.20 g.) and 5.0 cc. 0.94M PhLi in 20 cc. Et₂O refluxed overnight under N and hydrolyzed with dil. H₂SO₄, the org. layer evapd. on the steam bath, the residual orange oil warmed 15 min. with HCO₂H contg. a trace of p-MeC₆H₄SO₃H, and the solid product recrystd. from Me₂CO yielded 0.03 g. 1,2-diphenylacenaphthylene (VIII), orange needles, m. 156-9.degree.. 2,2-Diphenyl-1-acenaphthenone (IX), m. 173-4.degree., (3.0 g.) reduced with 0.23 g. LiAlH₄ in 200 cc. Et₂O yielded 2.7 g. 2,2-diphenyl-1-acenaphthenol (X), m. 119.5.degree., crystg. with 1/3 mole H₂O. X (0.50 g.) heated 15 min. on the steam bath with 15 cc. 98% HCO₂H contg. 0.20 g. p-MeC₆H₄SO₃H.H₂O, dild. with 15 cc. H₂O, and cooled gave 0.42 g. VIII, m. 161.3.degree.. 1,2-Dichloro-1,2-diphenylacenaphthene (VIII) (1.60 g.), m. 186-8.degree., in 30 cc. tetrahydrofuran added to 0.50 g. LiAlH₄ in 50 cc. tetrahydrofuran, refluxed overnight, and worked up in the usual manner gave 0.80 g. VIII, m. 150-6.degree.. I (0.50 g.) in 20 cc. MeOH contg. 2 drops H₂SO₄ refluxed 0.5 hr. yielded 0.43 g. Me acetal of I, m. 183-4.degree. (MeOH). I (0.70 g.) yielded similarly with EtOH the Et acetal (XI) of I, m. 197.5-8.5.degree.. I (0.50 g.) and 0.30 g. iodine in 25 cc. glacial AcOH heated 0.5 hr. on the steam bath, poured into dil. aq. NaHSO₃, and filtered gave 0.50 g. II, m. 231.degree. (AcOH); the isomerization was also carried out in above 90% yield in glacial AcOH contg. a drop of concd. H₂SO₄ or in HCO₂H. XI in AcOH contg. a trace of H₂SO₄ also yielded 92% II. VII (0.50 g.) warmed 24 hrs. with 10 cc. HCO₂H and 1.0 cc. BzH, cooled, and filtered gave 0.46 g. unchanged VII. VII was also recovered unchanged after refluxing 24 hrs. with HI and red P. III (0.80 g.) in 30 cc. AcOH, 4 cc. H₂O, and 0.4 cc. H₂SO₄ refluxed 16 hrs., poured into 3

vols. iced H₂O, extd. with Et₂O, and the ext. worked up yielded 0.75 g. XII, m. 200.5-201.degree. (EtOH-Me₂CO); 2,4-dinitrophenylhydrazone, scarlet needles, m. 269-71.degree. (decompn.). Me 8-benzhydryl-1-naphthoate (1.10 g.), m. 167-7.5.degree., added to MeLi from 0.76 g. Li and 14.2 g. MeI in 50 cc. Et₂O, refluxed 5 hrs., hydrolyzed with iced H₂O, extd. with Et₂O, the ext. worked up, and the residue triturated with hexane yielded 0.96 g. Me 8-benzhydryl-1-naphthyl ketone, m. 164-5.degree. (EtOH). IX (1.0 g.) in 15 cc. 100% N₂H₄.H₂O refluxed 2 hrs., cooled, filtered, the residue washed with EtOH, and recrystd. from EtOH-Me₂CO yielded 1.0 g. hydrazone of IX, m. 217-18.degree.; a 0.70-g. portion and 1.0 g. KOH in 15 cc. (CH₂OH)₂ heated at 180-200.degree., cooled, acidified with HCl, filtered, and the residue recrystd. from Me₂CO-EtOH yielded 0.65 g. II, m. 233.degree..

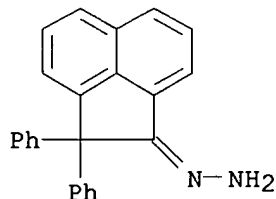
IT **78324-67-1**, 1-Acenaphthenol, 2,2-diphenyl- **85925-12-8**,
 1-Acenaphthenone, 2,2-diphenyl- **102755-53-3**, 1-Acenaphthenone,
 2,2-diphenyl-, hydrazone
 (prepn. of)
 RN 78324-67-1 CAPLUS
 CN 1-Acenaphthylenol, 1,2-dihydro-2,2-diphenyl- (9CI) (CA INDEX NAME)



RN 85925-12-8 CAPLUS
 CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



RN 102755-53-3 CAPLUS
 CN 1-Acenaphthenone, 2,2-diphenyl-, hydrazone (6CI) (CA INDEX NAME)



L27 ANSWER 106 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1959:56335 CAPLUS

DN 53:56335

OREF 53:10149h-i,10150a-i,10151a-i,10152a-i

TI The behavior of tetraaryllallenes in the diene synthesis with maleic anhydride

AU Alder, Kurt; Dolling, Ulrich; Schroder, Willi; Spanke, Wilhelm

CS Univ. Cologne, Germany

SO Chem. Ber. (1959), 92, 99-114

DT Journal

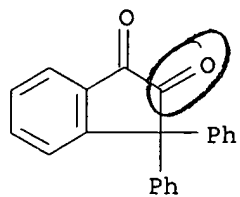
LA Unavailable

AB Tetraaryllallenes can be regarded as derivs. of .alpha.-phenylstyrene on the basis of their behavior in the diene syntheses with maleic anhydride (I). The adducts which contain 2 equivs. I are not homogeneous but rather mixts. of stereoisomers. $\text{Ph}_2\text{C}(\text{OH})\text{CH}_2\text{CO}_2\text{Et}$ dehydrated by the method of Schlenk and Bergmann (cf. S., et al., C.A. 22, 4498) but with 2-ClOH7SO3H yielded 85% $\text{Ph}_2\text{C}:\text{C}:\text{CPh}_2$ (II). II (67 g.), m. 165.degree., 60 g. I, and 400 cc. dry xylene refluxed 3 hrs., cooled, and filtered yielded 87% III (R = H) isomer A (IVA), m. 327.degree. (decompn.) (PhNO_2); the filtrate from IVA evapd. and freed of excess I, and the crude material digested with C_6H_6 yielded about 10 g. (crude) III (R = H) isomer B (IVB), prisms, m. 314.degree. (Me_2CO -ligroine). IVA and IVB are hydrolyzed by hot aq. NaOH. IVA (20 g.) dissolved with warming in 12 g. KOH in 75 cc. H_2O , cooled, treated with shaking with 20 g. Me_2SO_4 in portions, kept 1 hr., heated briefly to boiling, and filtered gave the cis-tetra-Me ester (V) from IVA, prisms, m. 215.degree. (MeOH). IVB (1 g.) heated with 1 g. KOH in 5 cc. H_2O , the soln. acidified with dil. HCl, the gelatinous ppt. dissolved by addn. of a few drops AcOH, and heated briefly to boiling gave the monoanhydride acid (VI) from IVB, m. 309.degree. (decompn.) (aq. Me_2CO). VI (3 g.) in MeOH treated with CH_2N_2 in Et₂O and concd. gave the cis-tetra-Me ester (VII) from IVB, prisms, m. 243.degree. (EtOAc). V (5 g.) mixed with 1.5 g. S and heated 1 hr. at 260.degree., the yellow oily distillate dissolved in MeOH, the soln. treated with 1 drop piperidine, refluxed some time, cooled, and filtered gave di-Me fumarate; the residue from the dehydrogenation refluxed 2 hrs. with 10 g. KOH and 30 cc. MeOH, the MeOH distd. and replaced by H_2O , the mixt. treated with 33% aq. H_2O_2 , acidified with HCl, boiled briefly, cooled, filtered, and the filter residue recrystd. from Me_2CO yielded 1-phenyl-2-benzhydrylnaphthalene-3,4-dicarboxylic acid anhydride (VIII), yellow needles, m. 218.degree.. VIII (0.5 g.) refluxed 8 hrs. with 15 cc. abs. MeOH, filtered, treated with CH_2N_2 in Et₂O, and worked up gave di-Me 1-phenyl-2-benzhydrylnaphthalene-3,4-dicarboxylate, m. 190.degree. (EtOAc). IVA (4 g.) and 16 g. NaOH in 2 cc. H_2O melted 10 min. with stirring, cooled, dissolved in hot H_2O , cooled, extd. with Et₂O, the ext. evapd., the residue dissolved in 20 cc. CHCl_3 , the soln. shaken 0.5 hr. with 1 cc. concd. HNO_3 and 2 cc. concd. H_2SO_4 , filtered, evapd., and the residue digested with C_6H_6 yielded ($p\text{-O}_2\text{NC}_6\text{H}_4$) $_2\text{CH}_2$, needles, m. 184.degree. (C_6H_6); the aq. alk. soln. acidified gave 1,3,4- $\text{PhC}_{10}\text{H}_5(\text{CO}_2\text{H})_2$ (IX), needles, m. 198-200.degree. (decompn.) (glacial AcOH). IX refluxed 2 hrs. with excess Ac₂O and evapd. gave the anhydride of IX, m. 174.degree. (EtOAc). IVA (3 g.) and 1.2 g. SeO_2 in 25 cc. PhNO_2 refluxed 4 hrs., cooled, filtered, and the residue sublimed in vacuo yielded X, yellow needles, m. 400.degree.; it showed a green-blue fluorescence in xylene. X was also obtained similarly from IVB and VIII. V (2.5 g.) distd. rapidly with a small flame and the distillate crystd. from MeOH gave II, m. 165.degree.; the filtrate treated with 1 drop piperidine, refluxed briefly, and kept overnight deposited di-Me fumarate. Monoanhydride acid (4 g.) from IVA refluxed with 125 cc. glacial AcOH, the hot mixt. treated during 45 min. with 10 g. CrO_3 in 25

cc. 75% AcOH, refluxed gently to soln., poured into 1 l. H₂O, filtered, the gelatinous residue washed with H₂O and dissolved in C₆H₆, the soln. washed with aq. Na₂CO₃, dried, evapd., and the residue digested with ligroine gave 0.8 g. 3,3-diphenylindan-1,2-dione (XI), m. 150.degree. (MeOH). XI (0.3 g.) and 0.12 g. .omicron.-C₆H₄(NH₂)₂ (XII) refluxed 1 hr. with 4 cc. glacial AcOH and some NaOAc, poured into H₂O, basified, extd. with Et₂O, and the ext. worked up yielded the quinoxaline deriv. of XI, yellowish crystals, m. 243.degree. (EtOAc). V (5 g.) in 100 cc. dry EtOAc treated with cooling with ice-NaCl 2.5 hrs. with ozone, washed with H₂O, evapd., and the residue recrystd. from MeOH yielded 1.5 g. compd., C₃₉H₃₆O₉, m. 212-14.degree. (decompn.). V (10 g.) and 150 cc. 10% NaOMe-MeOH refluxed 5 hrs., decompd. with H₂O, concd. to remove the MeOH, acidified with HCl, heated 0.5 hr. at 70.degree., filtered, the residue dissolved in MeOH acidified with HCl, heated 0.5 hr. at 70.degree., filtered, the residue dissolved in MeOH and treated with CH₂N₂ in Et₂O, the mixt. evapd., and the residue recrystd. slowly from hot MeOH yielded the trans-tetra-Me ester (XIII), m. 172.degree.; the mother liquors gave XIV, needles, m. 153.degree.. VII gave in the same manner XIII and XIV. VII (0.5 g.) in 250 cc. EtOAc hydrogenated over PrO₂ gave the dihydro deriv. (XV) of VII, prisms, m. 197.degree. (MeOH). V yielded under similar conditions only unchanged V. XIII (1.2 g.) in 60 cc. EtOAc hydrogenated over PtO₂ yielded the dihydro deriv. (XVI) of XIII, prisms, m. 140.degree. (MeOH). XIV (2 g.) in 30 cc. EtOAc hydrogenated over PtO₂ gave the dihydro deriv. of XIV, m. 168.degree. (MeOH). XV (0.3 g.) refluxed with 5 cc. 10% NaOMe-MeOH and the product isolated in the usual manner yielded XVI, m. 140.degree.. 1,1-Diphenyl-3,3-bis(p-methoxyphenyl)allene (XVII) (10 g.), m. 101-3.degree., and 7.5 g. I in 80 cc. dry Et₂O refluxed 7 hrs., cooled, filtered, and the residue recrystd. from EtOAc-ligroine gave 9 g. III (R = OMe) isomer A (XVIII A), needles, m. 262-3.degree. (decompn.), which crystd. depending upon the concn. also in the form of platelets, m. 248-9.degree. (decompn.); the filtrate from the XVIII A evapd. and the residue recrystd. from MeCN gave III (R = OMe) isomer B (XVIII B), needles or platelets, m. 286-7.degree. (decompn.) (EtOAc-ligroine), contg. 1 mole EtOAc of crystn. XVIII A (4 g.) in MeOH treated with CH₂N₂ in Et₂O gave the cis-tetra-Me ester (XIX) from XVIII A, prisms, m. 210-11.degree. (MeOH). XVIII B gave similarly the cis-tetra-Me ester (XX) from XVIII B, prisms, m. 222-3.degree. (MeOH). XVII (10 g.) and 7.5 g. I in 50 cc. dry xylene heated to reflux, the xylene distd. in vacuo, the residue digested with 150 cc. Et₂O and filtered, and the residue (about 12 g.) recrystd. from EtOAc-ligroine or MeCN yielded 7.5 g. XVIII A and 2.5 g. XVIII B. XIX (3.4 g.) and 0.3 g. S heated 1 hr. at 235.degree. and then briefly to 250.degree., the distillate dissolved in MeOH, and the soln. treated with 1 drop piperidine gave di-Me fumarate; the resinous distn. residue refluxed 3 hrs. with 60 cc. KOH-MeOH, the MeOH replaced by H₂O, the mixt. extd. with Et₂O, treated with C, acidified with concd. HCl, filtered, and the crude residue treated with MeOH with CH₂N₂ in Et₂O yielded 1.2 g. 1-(p-methoxyphenyl)-2-benzhydryl-6-methoxynaphthalene-3,4-dicarboxylic acid di-Me ester, m. 210-11.degree. (MeOH), also obtained similarly from XX. XVIII A (2 g.), 8 g. NaOH, and a few drops H₂O fused to a homogeneous melt, cooled, dissolved in warm H₂O, washed with Et₂O, acidified with concd. HCl, extd. with Et₂O, the ext. dried and evapd., and the residue refluxed to soln. with 30 cc. AcCl and concd. gave 0.8 g. anhydride (XXI) of 1-(p-acetoxyphenyl)-6-acetoxynaphthalene-3,4-dicarboxylic acid (XXII), yellow needles, m. 190-1.degree. (EtOAc); the Et₂O washing evapd. gave Ph₂CH₂ which was oxidized with CrO₃ to PhBz (semicarbazone m. 167-8.degree.). XXI (0.5 g.) in MeOH-C₆H₆ treated with CH₂N₂ in Et₂O yielded the di-Me ester of XXII, m. 173-4.degree. (MeOH). XVIII A (3 g.) fused with 12 g. NaOH in the usual

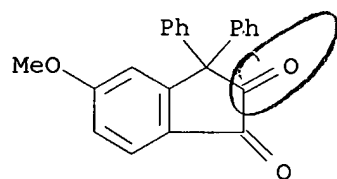
manner, the mixt. processed as before, the oily acid dissolved in Et₂O, the Et₂O soln. dried and evapd., and the residue treated in MeOH with CH₂N₂ in Et₂O yielded 1,6,3,4-(p-AcOC₆H₄)(MeO)C₁₀H₄(CO₂Me)₂ (XXIII), needles, m. 104-5.degree.. (p-MeOC₆H₄)₂C:CH₂ (12 g.), m. 142-3.degree., and 14.7 g. I in 50 cc. xylene refluxed 4 hrs. yielded about 15 g. adduct, m. 263.degree. (decompn.) (Ac₂O); adduct (3 g.) and 0.5 g. S heated 1 hr. at 250.degree., cooled, dissolved in warm 2N NaOH, treated with C, acidified with concd. HCl, filtered, and the residue dried and treated in MeOH with CH₂N₂ in Et₂O yielded XXIII. XVIIIIB fused with NaOH gave the same cleavage products as XVIIIA. XVIIIA (4 g.) distd. rapidly in vacuo, the distillate dissolved in hot aq. Na₂CO₃, the soln. cooled and extd. with Et₂O, the ext. evapd., and the residue recrystd. from MeCN and then EtOH yielded XVII, m. 101-3.degree.. XVIIIA (6 g.) and 90 cc. MeOH refluxed 7 hrs. with 12 cc. concd. H₂SO₄ in 12 cc. MeOH and cooled deposited 5.5 g. XXIV, prisms, m. 236-7.degree.. XVIIIA (2 g.) and 10 cc. 98-100% HCO₂H refluxed 1 hr., evapd. in vacuo, and the residue treated with MeOH with CH₂N₂ in Et₂O yielded 1.8 g. XXIV, m. 236-7.degree.. XVIIIIB was converted similarly to the isomer B (XXV) of XXIV, needles, m. 104-5.degree.. XVIIIA (4 g.) dissolved with stirring in 40 cc. cold 2N NaOH, stirred 4 hrs., dild. with 5 vols. H₂O, acidified with concd. HCl, kept some time in the cold, filtered, and the residue washed with iced H₂O and dried gave 3.8 g. tricarboxylactone XXVI, m. 205.degree. (decompn.). The X in MeOH treated with excess CH₂N₂ in Et₂O yielded 3.3 g. tri-Me ester (XXVII) of XXVI, m. 249-50.degree. (decompn.) (MeOH). Crude XXVI (1 g.) and 10 cc. AcCl refluxed 2 hrs. and evapd. gave XVIIIA, needles, m. 262-3.degree. (decompn.). XXVII (1 g.) in 6 cc. 98-100% HCO₂H refluxed 2 hrs., evapd. in vacuo, and the residue treated with CH₂N₂ in Et₂O yielded XXIV, m. 236-7.degree.. XVIIIIB (4 g.) treated 0.5 hr. with 40 cc. cold 2N NaOH yielded 3.8 g. crude tricarboxy lactone isomer (XXVIII) of XXVI, m. 224-5.degree. (decompn.). XXVIII treated in the usual manner with CH₂N₂ in Et₂O yielded the tri-Me ester (XXIX) of XXVIII, platelets, m. 240-1.degree. (MeOH). XXVIII treated with AcCl gave XVIIIIB, m. 286-7.degree.. XXIX refluxed 2 hrs. with 98% HCO₂H, evapd., and the residue treated with CH₂N₂ in Et₂O gave XXV, m. 228-9.degree.. XXIV (4.5 g.) in 140 cc. EtOAc treated with cooling with ice-NaCl 4 hrs. with ozone, shaken with H₂O, and evapd. in vacuo yielded 3.8 g. compd., C₄₀H₃₈O₁₁, needles, m. 240-1.degree. (decompn.). Crude XXVI (7 g.) in 150 cc. boiling glacial AcOH treated during 45 min. with 17 g. CrO₃ in 40 cc. 70% AcOH, cooled, poured into 700 cc. H₂O, extd. with Et₂O, and the ext. worked up yielded 1.3 g. 5-MeO deriv. (XXX) of XI, orange, yellow crystals, m. 172-3.degree. (MeOH). XXX (0.7 g.) and 0.28 g. XII in 25 cc. abs. EtOH refluxed 1 hr., treated with C, and evapd. yielded 0.75 g. quinoxaline deriv. of XXX, pale yellow needles, m. 231-2.degree. (EtOAc). XX was also obtained by oxidation of XXVIII with CrO₃. XIX (6 g.) and 80 cc. 10% NaOMe-MeOH refluxed 6 hrs., dild. with H₂O, concd., acidified with dil. HCl, filtered, the residue dried, dissolved in MeOH, and treated with CH₂N₂ in Et₂O gave XXXI, m. 174-5.degree. (MeOH), which was sepd. mechanically from the .beta.-isomer (XXXII), needles which change to platelets, m. 198-9.degree.. XX (3 g.) refluxed with NaOMe-MeOH gave similarly both XXXI and XXXII.

IT 7312-39-2, 1,2-Indandione, 3,3-diphenyl- 102468-61-1,
1,2-Indandione, 5-methoxy-3,3-diphenyl-
(prepn. of)
RN 7312-39-2 CAPLUS
CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



RN 102468-61-1 CAPLUS

CN 1,2-Indandione, 5-methoxy-3,3-diphenyl- (6CI) (CA INDEX NAME)



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AN 1958:87980 CAPLUS

DN 52:87980

OREF 52:15482h-i,15483a-i,15484a-i

TI Condensed cyclobutane aromatic systems. V. The synthesis of some .alpha.-diazoindanones: ring contraction in the indan series

AU Cava, M. P.; Little, R. L.; Napier, D. R.

CS Ohio State Univ., Columbus

SO J. Am. Chem. Soc. (1958), 80, 2257-63

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AB 4,7-Dimethyl-1-indanone (10.0 g.) in 150 cc. Methyl Cello-solve and 35 cc. concd. HCl treated with stirring with 8 cc. BuONO, kept 1.5 hrs. at room temp., and poured into 800 cc. cold H₂O yielded 10.5 g. 2-hydroxyimino deriv. (II) of I, needles from EtOH. II (10.0 g.), 70 cc. H₂O, 50 cc. 36% aq. CH₂O, and 25 cc. concd. HCl shaken occasionally during 0.5 hr. on the steam bath, cooled to room temp., dild with 1000 cc. H₂O, filtered, the yellow residue washed with H₂O, air-dried, dissolved in a min. amt. of C₆H₆, and the soln. poured with stirring into 500 cc. petr. ether gave 8.2 g. 4,7-dimethyl-1,2-indandione (III), golden-yellow needles, m. 172-5.degree. (cyclohexane-EtOAc). III (2.0 g.) in 20 cc. C₆H₆ treated dropwise with 0.5 cc. N₂H₄, the gel-like mixt. dild. with petr. ether, filtered, and the residue recrystd. from aq. MeOH gave 1.8 g. 2-hydrazone (IV) of III, needles, m. 166-75.degree. (decompn.). 4-Methyl-7-chloro-1-indanone (V) (20.0 g.) in 400 cc. Methyl Cellosolve and 50 cc. concd. HCl treated with stirring with 16 cc. BuONO, kept 45 min. at room temp., poured into 1000 cc. cold H₂O, and filtered yielded 21.3 g. 2-hydroxyimino deriv. (VI) of V, needles, m. 245-50.degree. (decompn.) (aq. MeOH). VI (33.0 g.) in 250 cc. H₂O, 250 cc. 36% aq. CH₂O, and 125 cc. concd. HCl heated on the steam bath with occasional shaking during 35 min., cooled, and dild. with 1 l. cold H₂O yielded 24.0 g. 2-oxo deriv. (VII) of V, orange needles, m. 195-200.degree. (petr. ether-EtOAc). 1-Indanone (VIII) (10.0 g.) in 60 cc. Methyl Cellosolve and 20 cc. concd. HCl treated with stirring with 5 cc. BuONO and, after less than 1 min., with an addnl. 5 cc. BuONO, kept 0.5 hr., poured into 1 l. cold H₂O, and filtered yielded 8.7 g. 2-hydroxyimino deriv. (IX) of VIII, m. 210-20.degree. with sintering at 190-200.degree. (MeOH). Powd. IX (10 g.), 20 cc. 36% aq. CH₂O, and 40 cc. concd. HCl stirred 20 min. at room temp., dild. with 300 cc. cold H₂O, filtered, and the residue (5.0 g.) washed with cold H₂O and dried gave 1,2-indandione (X), m. 95-112.degree. (Et₂O); the filtrate deposited 4.0 g. unchanged IX. III (3.5 g.) in 100 cc. hot MeOH treated with p-MeC₆H₄SO₂NHNH₂ (XI) in 30 cc. hot MeOH, cooled to room temp., and filtered after 1 hr. yielded 5.46 g. 2-(p-toluenesulfonylhydrazone) (XII), needles, m. 170-1.degree. (decompn.) (abs. EtOH). XI (20.0 g.) added to 20.0 g. VII in 425 cc. MeOH at 50.degree., kept 4 hrs. at room temp., and filtered gave 31.0 g. 2-(p-toluenesulfonylhydrazone) (XIII) of VII, needles, m. 177-8.degree. (decompn.). X (10.0 g.) and 12.8 g. XI in 300 cc. MeOH allowed to stand overnight gave 18.3 g. 2-(p-toluenesulfonylhydrazone) (XIV) of X, prisms, m. 178-9.degree. (decompn.). XIII (10.9 g.) in 305 cc. 0.1N NaOH kept 8 hrs. at room temp. and filtered yielded 5.6 g. 2-diazo deriv. (XV) of V, pale yellow needles, m. 170-6.degree. (decompn.); the aq. alk. filtrate washed with Et₂O, acidified, extd. with Et₂O, and the ext. evapd. left p-MeC₆H₄SO₂H. VI (6.3 g.) in 200 cc. H₂O and 30 cc. N NaOH treated with stirring at 2.degree. with 4 cc. 15N NH₄OH and then dropwise during 20 min. dropwise with 5.25% NaOCl, the mixt. stirred 5 hrs. without cooling and filtered, the brown solid residue washed with H₂O and dissolved in CH₂Cl₂, and the

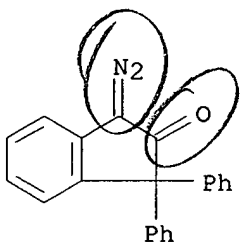
red soln. treated with C until orange, filtered, concd., and cooled gave 3.9 g. XV, m. 173-80.degree. (decompn.). XV (0.50 g.) in 25 cc. CH₂Cl₂ shaken with 4 cc. 47% HI, allowed to stand 15 min. after the evolution of N had ceased, dild. with H₂O, the org. layer washed, dried, evapd., and the solid residue sublimed at 115.degree./4 mm. yielded 0.30 g. V, pale yellow prisms, m. 128-9.degree.. XIV (5 g.) in 100 cc. 0.162N NaOH stirred 2.5 hrs. slowly with 50 cc. CH₂Cl₂, the orange org. layer washed, dried, evapd., the yellow-brown solid residue (2.0 g.) dissolved in boiling cyclohexane, and the soln. decanted from a small amt. of oil and chilled gave 1.46 g. 2-diazo deriv. (XVI) of V, bright yellow prisms, m. 87-8.degree. (sublimed at 78.degree./0.5). IX (5.0 g.) in 100 cc. 0.32N NaOH treated in the usual manner with NH₄OH and NaOCl, stirred 2 hrs. at room temp., filtered, and the residue recrystd. from CH₂Cl₂ gave 2.85 g. XVI. XVI (1.50 g.) reduced in the usual manner with HI gave crude V which yielded 0.92 g. bright red-orange 2,4-dinitrophenylhydrazone, m. 260.degree.. XII (3.4 g.) in 100 cc. 0.1N NaOH stirred slowly 2 hrs. with 50 cc. CH₂Cl₂ and the dried org. layer evapd. yielded 1.75 g. 4,7-di-Me deriv. (XVII) of XVI, m. 120-2.degree. (cyclohexane). IV (1.90 g.), 4.5 g. yellow HgO, and 2.0 g. Na₂SO₄ ground together, shaken 5 min. with 100 cc. dry Et₂O, treated with a few drops of 10% alc. KOH, shaken again 25 min., filtered, the residue washed with Et₂O, the combined Et₂O evapd., and the purple residue dissolved in CH₂Cl₂ and chromatographed on Al₂O₃ gave 0.056 g. XVII, m. 110-13.degree.. Acenaphthenequinone (5.0 g.) in 50 cc. boiling MeOH. treated with 5.5 g. XI, heated on the steam bath to soln., and cooled gave 8.5 g. monotosylhydrazone (XVIII), yellow needles, m. 179.degree. (decompn.) (iso-PrOH-MeOH). XVIII (7.0 g.) in 100 cc. CH₂Cl₂ stirred 3 hrs. with 200 cc. 0.1N NaOH, and the org. layer. washed, dried, concd. to 20 cc., and chromatographed on Al₂O₃ yielded 2.9 g. 7-diazo-8-acenaphthenone, bright orange needles, m. 94.degree. (petr. ether). Camphorquinone (XIX) (5.3 g.) and 6.0 g. XI in 50 cc. MeOH refluxed 1 hr., cooled, dild. with H₂O, extd. with CH₂Cl₂, and the extd. washed, dried, concd. to a small vol., and gradually dild. with petr. ether gave 6.0 g. 3-(p-toluenesulfonylhydrazone) (XX) of XIX, faintly yellow, m. 110-13.degree.. XX (3.3 g.) in 100 cc. 0.1N NaOH stirred 2 hrs. at room temp. with 50 cc. petr. ether, the aq. layer stirred 12 hrs. with fresh petr. ether, and the combined org. layers worked up yielded 1.36 g. 3-diazocamphor, yellow prisms, m. 75.degree. (sublimed at 50.degree./2 mm.). Isatin (XXI) (10.0 g.) in 250 cc. warm MeOH treated with 12.8 g. XI and kept 2 hrs. at room temp. gave 19.4 g. 3-(p-toluenesulfonylhydrazone) (XXII) of XXI, yellow prisms, m. 190-200.degree. (decompn.). XXII (0.3 g.) in 200 cc. 0.2N NaOH kept overnight and satd. with CO₂ deposited 3.0 g. orange powder which, washed with H₂O, dried, and recrystd. from C₆H₆, gave 3-diazoindole, blood-red crystals, m. 168.degree. (decompn.). XI (1.80 g.) and 2.08 g. 9,10-phenanthrenequinone in 20 cc. 95% EtOH refluxed about 10 min., the cooled soln. dild. with 100 cc. cold H₂O, the resulting suspension basified slightly with dil. KOH, filtered, the residue dissolved in a little CH₂Cl₂, and the soln. chromatographed on Al₂O₃ yielded 1.36 g. 9-diazo-10(9H)-phenanthrone, yellow-orange needles, m. 107-9.degree. (cyclohexane-petr. ether). 3,3-Diphenyl-1,2-indandione (3.0 g.) in 150 cc. boiling MeOH treated with 1.90 g. XI and kept overnight at room temp. yielded 2.80 g. 1-(p-toluenesulfonylhydrazone) (XXIII), yellow prisms, m. 188-90.degree. (decompn.) (abs. EtOH). XXIII (1.50 g.) in 30 cc. CH₂Cl₂ stirred 4 hrs. with 45 cc. 0.1N NaOH, and the org. layer washed, dried, and chromatographed on Al₂O₃ yielded 0.65 g. 3,3-diphenyl-1-diazo-2-indanone, red rods, m. 162-4.degree. (decompn.). 3,3-Diphenyl-2-hydroxyimino-1-indanone (1.60 g.) in 5.0 cc. 1.2N NaOH and 150 cc. H₂O treated at 4.degree. with 1.5 cc. 15N NH₄OH and then during 10 min. with

stirring with 20 cc. 5.25% aq. NaOCl, stirred 3 hrs., extd. with CH₂Cl₂, and the ext. worked up yielded 1.0 g. 3,3-diphenyl-2-diazo-1-indanone, yellow platelets, m. 179-80.degree. (EtOAc-petr. ether). XV (2.00 g.) in 170 cc. tetrahydrofuran and 30 cc. H₂O contg. 2 g. suspended NaHCO₃ in a Pyrex tube with an internal low-pressure Hg discharge tube irradiated 9 hrs. at 50.degree., dild. with 50 cc. H₂O, distd. to remove the tetrahydrofuran, the aq. residue washed with CH₂Cl₂, acidified, filtered, the residue (0.42 g.) dissolved in 100 cc. boiling H₂O, filtered, and the filtrate cooled deposited 0.36 g. 3-methyl-6-chloro-benzocyclobutene-1-carboxylic acid, needles, m. 143-4.degree. (sublimed at 95.degree./0.5 mm.). XVII (1.00 g.) in 170 cc. tetrahydrofuran and 30 cc. H₂O contg. 1 g. NaHCO₃ irradiated 16 hrs. at 50.degree. gave similarly 0.21 g. 3,6-dimethylbenzocyclobutene-1-carboxylic acid, prisms, m. 107-9.degree. (sublimed at 78.degree./0.5 mm.). 1-Bromobenzoeyelobutene (XXIV) (5.00 g.) and 2.0 g. NaCN in 30 cc. Me₂SO heated 0.5 hr. at 50.degree. and 0.5 hr. at 95.degree., dild. with 150 cc. H₂O, extd. with 150 cc. 8:1 Et₂O-petr. ether, the ext. washed, dried, evapd., and the residue distd. yielded the following 3 fractions of the 1-CN analog (XXV) of XXIV; b1.3 88.degree., 0.615 g., n_{25D} 1.5657; 1.462 g., n_{25D} 1.5492; 1.204 g., n_{25D} 1.5450. XXIV and excess NaCN in MeOH refluxed 11 hrs. and worked up in the usual manner gave 25-30% XXV. XXV (1.00 g.), 2 cc. 30% H₂O₂, and 2 cc. 20% NaOH shaken 15 min., dild. with MeOH (8-10 cc.) to sustain the reaction while maintaining the temp. below 60.degree., the mixt. heated 15 min. at 60.degree., dild. with H₂O, extd. with 50 cc. CH₂Cl₂, and the ext. filtered through Na₂SO₄ and dild. slowly with petr. ether pptd. 0.835 g. benzocyclobutene-1-carboxamide (XXVI), needles, m. 159.5.degree. (CH₂Cl₂-petr. ether). XXVI (1.00 g.) in 15 cc. hot 20% aq. NaOH heated 5 hrs. on the steam bath, cooled, acidified strongly with concd. HCl, extd. with 5:1 petr. ether-Et₂O, the ext. filtered through Na₂SO₄, evapd., and the residue recrystd. at -5.degree. from petr. ether yielded 0.975 g. benzocyclobutene-1-carboxylic acid (XXVII), m. 76.5.degree.. XVI (2.0 g.) in 200 cc. tetrahydrofuran and 100 cc. H₂O contg. 2.0 g. NaHCO₃ irradiated at the b.p. 10 hrs. in the usual manner, the tetrahydrofuran distd., the tarry aq. residue washed with CH₂Cl₂, acidified, extd. with Et₂O, the Et₂O ext. washed, dried, evapd., and the residue sublimed at 90.degree./2 mm. yielded 0.400 g. XXVII, m. 74-5.degree. (petr. ether).

IT 54964-80-6, 2-Indanone, 3-diazo-1,1-diphenyl- 97433-64-2
 , 1-Indanone, 2-diazo-3,3-diphenyl-
 (prepn. of)

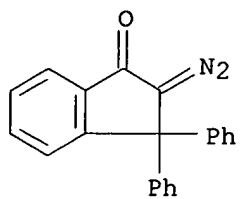
RN 54964-80-6 CAPLUS

CN 2H-Inden-2-one, 3-diazo-1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 97433-64-2 CAPLUS

CN 1-Indanone, 2-diazo-3,3-diphenyl- (6CI, 7CI) (CA INDEX NAME)



L27 ANSWER 108 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1957:66545 CAPLUS

DN 51:66545

OREF 51:12048c-i,12049a-b

TI Addition of tert-butylmagnesium chloride to 2,2-diphenyl-1-acenaphthenone

AU Fuson, Reynold C.; Griffin, Gary W.

CS Univ. of Illinois, Urbana

SO J. Am. Chem. Soc. (1957), 79, 1941-5

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

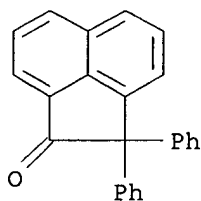
AB 2,2-Diphenyl-1-acenaphthenone (I) (4.0 g.) in 80 cc. dry C₆H₆ added during 0.5 hr. to the Grignard reagent from 1.52 g. Mg, 6.67 g. Me₃CCl, and 65 cc. dry Et₂O, the mixt. slowly heated to 60.degree. without condenser to remove the Et₂O, the residual mixt. then kept 16 hrs. at 60.degree., cooled, treated 5 min. with 0 then with 200 cc. H₂O contg. 10 cc. concd. HCl, the aq. layer extd. with Et₂O, and the combined org. layer and Et₂O washing dried, concd. on the steam bath under an air jet to 20 cc., dild. with abs. EtOH, and cooled gave 0.82 g. 6-tert-butyl-6,7-dihydro deriv. (II) of I, colorless crystals, m. 185.degree. (decompn.); 2nd crop (0.5 g.), m. 184.degree. (decompn.); the combined material recrystd. from C₆H₆-EtOH or aq. pyridine gave II, m. 191.5.degree. (decompn.). Chromatography of the crude oily product of a similar run gave 0.23 g. 8-Me₃C deriv. of I, m. 177-8.degree. (from EtOH-C₆H₆ or methylcyclohexane). II (0.50 g.) and 0.33 g. chloranil in 3 cc. m-xylene refluxed 4 hrs., cooled, filtered, the filtrate dild. with an equal vol. of Et₂O, extd. with 5% aq. KOH, and the org. layer concd. on the steam bath and dild. with abs. EtOH gave 0.32 g. I; the mother liquor yielded 0.0305 g. 6-Me₃C deriv. (III) of I, m. 189-90.degree. (from EtOH). II (0.34 g.), 0.04 g. 30% Pd-C, and 4.5 cc. mesitylene refluxed 0.5 hr. under a stream of N, filtered, and evapd. gave 82% I. II (0.10 g.) in 40 cc. C₆H₆ hydrogenated over 0.048 g. prerduced PtO₂ absorbed 110 cc. H and gave a crude product contg. a 5-membered unconjugated cyclic ketone. II (0.25 g.) in 10 cc. pyridine dild. with hot H₂O to incipient cloudiness, refluxed 3 hrs. with 0.2 g. NaOH and 1.62 g. powd. KMnO₄, treated with a few drops MeOH, heated 5 min., filtered, the filtrate concd. on the steam bath with an air jet, the oily residue digested 15 min. with 20 cc. 1% aq. NaOH, filtered, and the filtrate acidified with concd. H₂SO₄ gave 0.022 g. 7-carboxy-3,3-diphenyl-1,2-indandione (IV), m. 203.5-5.5.degree. (from C₆H₆ and cyclohexane). PhMgBr from 3.92 g. PhBr and 0.61 g. Mg in 30 cc. Et₂O treated dropwise with 2.75 g. 5-tert-butylacenaphthenequinone in 30 cc. dry C₆H₆, refluxed 4 hrs., cooled, poured into 200 cc. 10% aq. AcOH, allowed to stand overnight, the aq. layer extd. with Et₂O, the combined org. layer and the ext. worked up, and the oily residue heated with petr. ether to soln., and cooled yielded 3.60 g. 5-tert-butyl-1,2-diphenyl-1,2-acenaphthenediol (V), m. 197.5-9.5.degree. (from EtOH and H₂O). V (1.81 g.) in 75 cc. boiling glacial AcOH treated with several drops concd. H₂SO₄, refluxed 5 min., poured hot onto 300 g. crushed ice, allowed to stand 1.5 hrs., and filtered gave a crude solid, m. 90-140.degree. (from EtOH-C₆H₆), which, fractionally crystd. from abs. EtOH, yielded III, m. 190-1.degree., and a small amt. of a solid, m. 147.5-48.degree., probably the 5-Me₃C isomer. MeMgI from 1.22 g. Mg, 7.81 g. MeI, and 50 cc. Et₂O treated with 3.18 g. I in 50 cc. C₆H₆, the Et₂O distd. (up to 60.degree.), the residual C₆H₆ soln. refluxed 22 hrs., cooled, treated with 150 cc. 10% HCl, the aq. layer extd. with Et₂O, and the combined org. layer and Et₂O ext. concd. to 20 cc., dild. with MeOH, and concd. gave 2.02 g. 1,1-diphenyl-2-methyleneacenaphthene (VI), m. 174-5.degree. (from EtOH and sublimed at 120.degree./0.10 mm.). VI (0.22 g.) in 5 cc. pyridine added

to 0.30 g. powd. KMnO_4 in 5 cc. H_2O , the mixt. treated with 1 cc. 10% aq. NaOH , heated to 110.degree., refluxed 4.5 hrs., cooled, acidified with concd. H_2SO_4 , treated with 9.5 cc. 10% aq. NaHSO_3 , filtered, the yellow solid (0.07 g.) dissolved in $\text{EtOH-C}_6\text{H}_6$, filtered, and the filtrate evapd. gave I, m. 173-4.degree. (sublimed at 120.degree./0.10 mm.). I (3.87 g.) in 75 cc. C_6H_6 added to PhMgBr from 10.4 g. PhBr , 1.47 g. Mg , and 55 cc. Et_2O as fast as possible, the mixt. distd. to 60.degree., the residual mixt. kept 16 hrs. at 60.degree. with stirring (after the 1st 6 hrs. an addnl. 0.025 mole PhMgBr was added), treated with 200 cc. 10% HCl , and worked up in the usual manner gave an oily product which, chromatographed on Al_2O_3 , yielded 1.02 g. 8-Ph deriv. of I, m. 160-1.5.degree. (from $\text{C}_6\text{H}_6\text{-EtOH}$).

IT **85925-12-8**, 1-Acenaphthenone, 2,2-diphenyl-
(Grignard reaction with)

RN 85925-12-8 CAPLUS

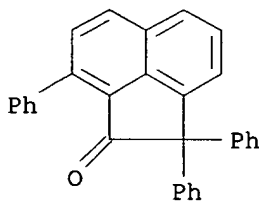
CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



IT **96376-75-9**, 1-Acenaphthenone, 2,2,8-triphenyl- **102884-60-6**
, Acenaphthene, 2-methylene-1,1-diphenyl- **112441-66-4**,
4-Indancarboxylic acid, 2,3-dioxo-1,1-diphenyl- **114696-90-1**,
1-Acenaphthenone, 6-tert-butyl-6,7-dihydro-2,2-diphenyl-
116027-65-7, 1-Acenaphthenone, 6-tert-butyl-2,2-diphenyl-
116027-66-8, 1-Acenaphthenone, 8-tert-butyl-2,2-diphenyl-
116029-03-9, 1-Acenaphthenone, 5-tert-butyl-2,2-diphenyl-
(prepn. of)

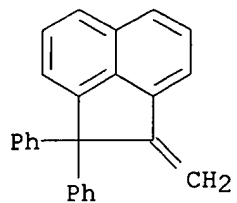
RN 96376-75-9 CAPLUS

CN 1-Acenaphthenone, 2,2,8-triphenyl- (6CI, 7CI) (CA INDEX NAME)



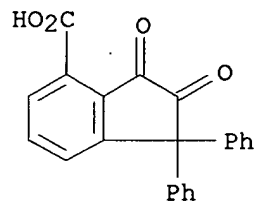
RN 102884-60-6 CAPLUS

CN Acenaphthene, 2-methylene-1,1-diphenyl- (6CI) (CA INDEX NAME)



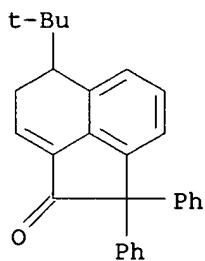
RN 112441-66-4 CAPLUS

CN 4-Indancarboxylic acid, 2,3-dioxo-1,1-diphenyl- (6CI) (CA INDEX NAME)



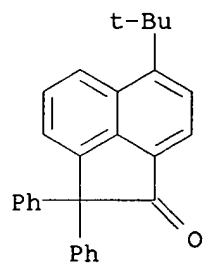
RN 114696-90-1 CAPLUS

CN 1-Acenaphthenone, 6-tert-butyl-6,7-dihydro-2,2-diphenyl- (6CI) (CA INDEX NAME)



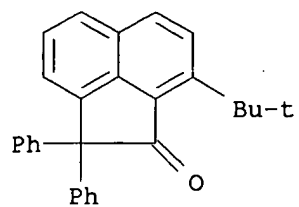
RN 116027-65-7 CAPLUS

CN 1-Acenaphthenone, 6-tert-butyl-2,2-diphenyl- (6CI) (CA INDEX NAME)



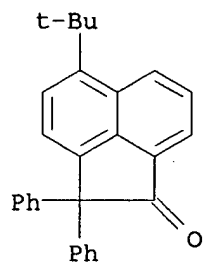
RN 116027-66-8 CAPLUS

CN 1-Acenaphthenone, 8-tert-butyl-2,2-diphenyl- (6CI) (CA INDEX NAME)

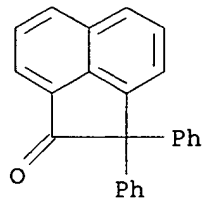


RN 116029-03-9 CAPLUS

CN 1-Acenaphthenone, 5-tert-butyl-2,2-diphenyl- (6CI) (CA INDEX NAME)



L27 ANSWER 109 OF 110 CAPLUS COPYRIGHT 2003 ACS
AN 1957:62268 CAPLUS
DN 51:62268
OREF 51:11308c-d
TI Addition of tert-butylmagnesium chloride to 2,2-diphenyl-1-acenaphthenone
AU Griffin, Gary Walter
CS Univ. of Illinois, Urbana
SO (1957) 109 pp.;microfilm, \$2.00; paper enlargement, \$10.90 Avail.: Univ.
Microfilms (Ann Arbor, Mich.), Order No. 20864
From: Dissertation Abstr. 17, 979-80
DT Dissertation
LA Unavailable
AB Unavailable
IT **85925-12-8**, 1-Acenaphthenone, 2,2-diphenyl-
(Grignard reaction with)
RN 85925-12-8 CAPLUS
CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L27 ANSWER 110 OF 110 CAPLUS COPYRIGHT 2003 ACS

AN 1957:12752 CAPLUS

DN 51:12752

OREF 51:2689i,2690a-i,2691a-i,2692a-e

TI Compounds of potential pharmacological interest. IV. Aryl and alkyl derivatives of 1-aminoindan

AU Barltrop, J. A.; Acheson, R. M.; Philpott, P. G.; MacPhee, K. E.; Hunt, J. S.

CS Univ. Oxford, UK

SO J. Chem. Soc. (1956) 2928-40

DT Journal

LA Unavailable

AB cf. C.A. 50, 15838h. A number of aryl and alkyl derivs. of 1-aminoindan (I) were synthesized by the following routes. The cyclization of .beta.-p-methoxyphenyl-.beta.-phenylpropionic acid (II) was shown to lead to 3-p-methoxyphenylindan-1-one (III), and not 6-methoxy-6-phenylindan-1-one (IV) as suggested by Pfeiffer and Roos (C.A. 36, 61557). 3-Phenylindan-1-one (V) (4.2 g.) and 3.8 g. $\text{NH}_4\text{O}_2\text{CH}$ heated 3 hrs. in an oil bath at 170-80.degree. and the residue refluxed 2 hrs. with concd. HCl gave 1 g. 1-amino-3-phenylindan- HCl (VI), m. 225.degree. (decompn.) (from wet dioxane). 1-Hydroxyimino-3-phenylindan (VII) (4.3 g.) in EtOH satd. with NH_3 was hydrogenated at 100 atm. at room temp. with Raney Ni and H; 4 hrs. were required for an uptake of 2 moles H, and the residue treated with HCl gave 84.7% VI. When this was repeated at 85.degree./64 atm. without NH_3 , then VII gave 36% VI. VI (3.3 g.) converted into the free base (VIII) and heated 2.5 hrs. with 2 g. HCO_2H and 3 cc. 40% HCHO , the mixt. refluxed 5 min., basified, and extd. with Et_2O and the residue dissolved in dil. HCl and again basified and extd. Treatment of the product with dry HCl gave 3 g. 1-dimethylamino-3-phenylindan- HCl (IX), rhombs, m. 190.degree. (from alc.). VIII (3 g.) and 1.53 g. BzH heated at 100.degree./150 atm. yielded 4 g. 1-benzylideneamino-3-phenylindan (X), solid, m. 95.5-6.5.degree. (from ligroine). Me_2SO_4 (2 g.) and 4 g. X refluxed 1.5 hrs. in 40 cc. dry PhMe , washed with H_2O to decomp. the anil, the product basified, and retreated with dry HCl to give 2 g. 1-methylamino-3-phenylindan- HCl , needles, m. 230.degree.. X (7.2 g.) in alc. hydrogenated at 1 atm. and room temp. over Adam's catalyst for 1 hr. yielded 7 g. 1-benzylamino-3-phenylindan- HCl when pptd. with dry HCl , m. 206.5-7.5.degree. (from EtOAc -alc.). VI (3.3 g.) converted into 2.8 g. of VIII, dissolved in Me_2CO and refluxed 5 hrs. with 8 g. EtI and 4 g. K_2CO_3 and treatment of the residual oil with dry HCl gave 1.1 g. 1-diethylamino-3-phenylindan- HCl (XI), rhombs, m. 181-3.degree. (from EtOAc - EtOH). $\text{AcCH}_2\text{CO}_2\text{Et}$ (270 g.) added during 3-4 hrs. with cooling to 830 g. PCl_5 , left 1 hr. at room temp., warmed 1-2 hrs. to 50-4.degree., and treated in H_2O and ice gave a mixt. (XII) of .beta.-chlorocrotonic and .beta.-chloroisocrotonic acid (120 g.) as needles. XII (50 g.) condensed with 550 cc. C_6H_6 in the presence of 180 g. AlCl_3 gave 46 g. .beta.-.beta.-diphenylbutyric acid (XIII), oil, b0.26 160-90.degree., needles, m. 101.degree., and 18 g. .beta.-phenylbutyric acid (XIV), b0.22 118-28.degree., rhombs, m. 46-7.degree. (amide, m. 105-7.degree.). The formation of XIV showed that during the reaction, a proton rather than a Ph group was attached to the .beta.-position. Diphenylbutan-2-one both brominated and chlorinated, and then treated with NaOMe in order to effect rearrangement did not yield XIII. 3-Hydroxyimino-1-methyl-1-phenylindan (5 g.) in MeOH - EtOH treated during 1.5 hrs. with 3% Na amalgam, the liquid kept acid by addn. of 30% AcOH , and the residue refluxed with H_2O , filtered hot, the filtrate basified and the liberated base treated with dry HCl to give 3.55 g. 3-amino-1-methyl-1-phenylindan- HCl (XV), plates, m. 260.degree.. 2,4-Diphenylbutan-2-ol (12 g.) added during 0.5 hr. to 25

cc. 85% H₂SO₄ at 8-10.degree., stirred another hr. gave 3 g. 1-methyl-1-phenylindan (XVI), b₁₂ 145-50.degree., n_D²⁰ 1.5848. Zn turnings (50 g.) were amalgamated with 100 cc. 5% soln. HgCl₂, then treated with 5 g. 3-methyl-3-phenylindan-1-one in AcOH and refluxed with concd. HCl addn. during 2 hrs. gave 3.8 g. XVI. The infrared absorption suggested the presence of a C-Me group and was identical with that obtained above. XV (3.5 g.) in aq. soln. converted into the free base and heated 3 hrs. with HCO₂H and HCHO, refluxed 5 min., and the salt formed gave 2.5 g. 3-dimethylamino-1-methyl-1-phenylindan-HCl (XVII), rhombs, m. 229-30.degree. (from alc.). Br (3.22 g.) in 15 cc. CCl₄ added to 4.2 g. XVI in ice-cold CCl₄, then dissolved in dry dioxane and left 24 hrs. at room temp. with 5 g. anhyd. NHMe in a pressure bottle, then at 50.degree. for 2 hrs. gave 2 g. XVII. Bromination of XVI was repeated in the presence of Bz₂O₂ and the bromide condensed with NHMe₂ gave XVII. MeMgI from 1.3 g. Mg and 7.5 g. MeI was refluxed 1 hr. with 10.8 g. V in Et₂O yielded 6.5 g. 1-methyl-3-phenylindan-1-ol as rhombs, m. 84-5.degree. (from ligroine). .alpha.-Methyl-.beta., .beta.-diphenylpropionic acid (9 g.) and 9 cc. SOCl₂ refluxed 1 hr., excess SOCl₂ removed, the residual oil dissolved in C₆H₆, and left 12 hrs. with 6 g. AlCl₃, and the complex decompd. gave 7.1 g. 2-methyl-3-phenylindan-1-one as an oil, b₁ 140-5.degree.; 2,4-dinitrophenylhydrazones, brick-red plates, m. 183.degree.. m-Methoxycinnamic acid (10 g.) refluxed 3.5 hrs. with AlCl₃, in C₆H₆ gave 10.25 g. .beta.-m-methoxyphenyl-.beta.-phenylpropionic acid (XVIII), m. 98-9.degree. (from AcOH). Attempts. to prep. XVIII under milder conditions at 15.degree. or 25.degree. for 4 hrs. gave starting material only. A slurry of orthophosphoric acid and P₂O₅ heated 2 hrs. at 100.degree. and then heated a further 2 hrs. at 100.degree. with 7.5 g. XVIII yielded 66% 5-methoxy-3-phenylindan-1-one as rods, m. 130.degree.; 2,4-dinitrophenylhydrazones, m. 199-200.degree.. II (24.4 g.) similarly cyclized gave 4.55 g. III, b_{0.1} 150-5.degree., m. 73.degree. (from aq. MeOH); oxime, m. 166-7.degree.; 2,4-dinitrophenylhydrazones, m. 182.degree.. III (0.3 g.) suspended in a soln. of 0.67 g. KMnO₄ and 0.3 g. KOH in 50 cc. H₂O and refluxed for 2.5 hrs. yielded 0.1 g. o-(p-methoxybenzoyl)-benzoic acid (XIX), plates, m. 143.degree. (from H₂O), identical with XIX prepd. from phthalic anhydride and anisole in the presence of AlCl₃. 2,2-Diphenylacenaphthen-1-ol (9 g.) in C₆H₆ satd. at 0.degree. with dry HBr gave 7.9 g. 1,2-diphenylacenaphthylene, red needles, m. 162-3.degree. (from Me₂CO). Indan-1-ones (XX) were reduced by the following general method: the ketones in 10-20 vols. of Et₂O was refluxed 2 hrs. with ethereal LiAlH₄ (30-50% excess). After treatment with dil. acid, the Et₂O layers were washed with H₂O or NaHCO₃ soln. until neutral, dried, and evapd. The residual alcs. were triturated with ligroine, and recrystd. The following indan-1-ols (XXI) were thus prepd. (substituents in XXI, % yield, crystal form, solvent, and m.p. given): 3-Ph, 95, needles, aq. EtOH, 94.5-5.0.degree.; 3-Me, 3-Ph, 45, needles, EtOH, 125.degree.; 2-Me, 3-Ph, 86, rods, ligroine, 123.degree.; 5-MeO, 3-Ph, 85, -, aq. MeOH, 112.degree.; 3-p-MeOC₆H₄, 100, needles, ligroine, 114.degree.; 3-Me, 100, -, aq. MeOH, 71-2.degree.; 3-Et, 100, needles, ligroine, 77-8.degree.; 2,3-Me₂, 82, needles, ligroine, 84-5.degree.; 2,3-Et₂, 82, needles, ligroine, 117.degree.. Also prepd. was 2,2-diphenylacenaphthen-1-ol, 88, rhombs, EtOH or C₆H₆, 136-8.degree.. XXI in C₆H₆ satd. with HBr at 0.degree., decanted from the H₂O, washed until neutral, then dried, and evapd. in vacuo, the crude product treated with excess secondary amine in dioxane in a pressure-bottle, the pptd. product washed with Et₂O, the solvent removed, and the residual oil treated in Et₂O with Et₂O-HCl yielded the 1-dialkylaminoindan-HCl (XXII). The following XXII were thus prepd. (ring substituents or compd. no., amino group, condensation temp., time of reaction, % yield, crystal form,

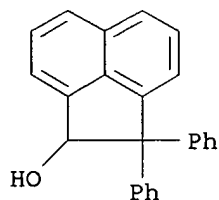
and m.p. given): IX, NMe₂, 70.degree., 3, 82, rhombs, 191-2.degree.; XI, NEt₂, 80.degree., 2, 42, rhombs, 180-1.degree.; XVII (isomer A), NMe₂, 65.degree., 3, 86, rhombs, 229-30.degree. (picrate, needles, m. 155-6.degree.); 3-Me, 3-Ph (isomer B), NMe₂, 65.degree., 3, 86, rhombs, 197-200.degree.; 3-Me, 3-Ph, NEt₂, 80.degree., 4, 80, rhombs, 150-80.degree.; 3-Me, 3-Ph, morpholino, 80.degree., 3.5, 74, rods, 238-9.degree.; 1-Me, 3-Ph, NMe₂, 15.degree., 12, 7, rhombs, 220.degree.; 2-Me, 3-Ph (isomer A), NMe₂, 15.degree., 12, 32, rhombs, 236-7.degree.; 2-Me, 3-Ph (isomer B), NMe₂, 15.degree., 12, 28, rods, 210.degree. (picrate, needles, m. 179-80.degree.); 5-MeO, 3-Ph, NMe₂, 40.degree., 12, -, crystals, 219.degree. (decompn.) (picrate, needles, m. 167.degree.); 3-p-MeOC₆H₄, NMe₂, 15.degree., 12, -, needles, 211-12.degree. (picrate, needles, m. 135.degree.); 3-Me, NMe₂, 40.degree., 12, -, rhombs, 202.degree. (picrate, needles, 167-8.degree.); 3-Me, morpholino, -, 3, -, rods, 195-6.degree. (decompn.) (picrate, plates, m. 162-3.degree.); 3-Et, NMe₂, 40.degree., 12, -, plates, 165-6.degree. (picrate, needles, m. 165.degree.); 3-Et, morpholino, -, 3, -, needles or plates, 199-201.degree. (picrate, plates, 168.degree.); 3-cyclohexyl, NMe₂, 40.degree., 12, -, needles, 181-3.degree. (picrate, needles, m. 171-2.degree.); 2,3-Me₂, NMe₂, 15.degree., 12, 52, glass, -(picrate, rhombs, m. 158-9.degree.; methiodide, m. 148-9.degree.); 2,3-Et₂, NMe₂, 15, 24, 45, glass, -(methiodide, needles, m. 166.degree.; ethiodide, needles, m. 170.degree.). Propiophenone (XXIIa) (31.5 g.), 46.7 g. BrCH₂CO₂Et, 19.8 g. Zn wool, and 200 cc. dry C₆H₆ refluxed 6 hrs. with a trace of I yielded 38 g. Et .beta.-hydroxy-.beta.-phenylvalerate (XXIII), b_{0.5} 104.degree., m. 34-5.degree.. A portion of XXIII was hydrolyzed with alc. KOH to give the free acid, m. 120-1.degree.. XXIII (20 g.) in C₆H₆ refluxed 3 hrs. with 30 g. P₂O₅ added portionwise gave 13 g. of Et 3-phenylpent-2-enoate (XXIV), b_{0.1} 95-105.degree.. A portion of XXIV hydrolyzed to the free acid, m. 95-6.degree., as plates. XXIV (2 g.) in EtOH hydrogenated at room temp. and pressure in the presence of PtO₂ 1 hr. and the ester hydrolyzed with alc. KOH gave 1.7 g. .beta.-phenylvaleric acid (XXV), m. 63.degree. (from ligroine). XXV (9 g.) refluxed with 12 g. PCl₅ until no more HCl was evolved and the cooled product treated with 8 g. AlCl₃ yielded 2 g. 3-ethylindan-1-one (XXVI), b₁₀ 116.degree.; semicarbazone, m. 189.degree.; 2,4-dinitrophenylhydrazone, m. 197.degree.. A slurry of 240 g. orthophosphoric acid and 372 g. P₂O₅ was heated at 100.degree. 2 hrs. and 16 g. XXV added, the soln. heated 2 hrs. at 100.degree., and the product purified gave 13.1 g. XXVI. Cyclohexyl Ph ketone (34.4 g.), 31 g. BrCH₂CO₂Et, and 12.5 g. Zn wool treated in C₆H₆ for 2 hrs., and the Et .beta.-hydroxy-.beta.-cyclohexyl-.beta.-phenylvalerate so obtained immediately dehydrated by refluxing with P₂O₅ as above gave 27.7 g. Et .beta.-cyclohexyl-.beta.-phenylacrylate (XXVII), oil, b_{0.2} 100.degree.. XXVII was hydrolyzed to the free acid, m. 141-2.degree.. An alc. soln. of 5 g. XXVII similarly hydrogenated with Pd-SrCO₃ and the ester hydrolyzed gave 17.6 g. .beta.-cyclohexyl-.beta.-phenylpropionic acid (XXVIII), m. 98.degree. (from ligroine). XXVIII (5 g.) in dry C₆H₆ refluxed with 1.5 cc. PCl₃ until hydrogen chloride was no longer evolved and the product treated with AlCl₃ gave 0.5 g. 3-cyclohexylindan-1-one (XXIX), b_{0.8} 150.degree., colorless crystals, m. 49.degree.; 2,4-dinitrophenylhydrazone, m. 199-200.degree.. Orthophosphoric acid, 62 g. P₂O₅, and 2.5 g. XXVIII when cyclized gave 1.6 g. XXIX as cryst. material without distn. Et .alpha.-methyl-.beta.-phenylcrotonate (20 g.) in alc. was converted into 19 g. Et .alpha.-methyl-.beta.-phenylbutyrate by hydrogenation 16 hrs. over PtO₂ to give a product b₁₂ 128-30.degree., which on hydrolysis afforded the free acid (XXX), m. 152.degree.. XXX (22.3 g.) cyclized as described with 22 ml. SOCl₂ in C₆H₆ and AlCl₃ gave 16.5 g. 2,3-dimethylindan-1-one, an oil,

b10 118-20.degree.; 2,4-dinitrophenylhydrazone, m. 179-80.degree.. XXIIa (33.5 g.) and 50 g. EtCHBrCO₂Et in C₆H₆ refluxed 10 hrs. with 20 g. Zn turnings yielded 20 g. Et .alpha.-ethyl-.beta.-hydroxy-.beta.-phenylvalerate (XXXI), b10 155-60.degree., m. 61-2.degree. (from ligroine). P205 added during 2 hrs. to a refluxing soln. of 20 g. XXXI in C₆H₆ gave 18 g. Et .alpha.-ethyl-.beta.-phenylpent-2-enoate (XXXII), b12 144-50.degree.. XXXII on hydrolysis yielded the acid, b1 132.degree.. XXXII (18 g.) in alc. hydrogenated 8 hrs. over PtO₂ gave 17 g. Et .alpha.-ethyl-.beta.-phenylvalerate as a mobile oil, b12 130-6.degree.. Hydrolysis with KOH in 50% aq. alc. gave 11 g. of the acid (XXXIII), b1 120-5.degree.. The amide was also an oil. XXXIII (10 g.) was similarly cyclized to give 7 g. 2,3-diethylindan-1-one, b12 134-5.degree.; 2,4-dinitrophenylhydrazone, brick-red needles, m. 161.degree.. Br (22 g.) in CCl₄ added to an ice-cold soln. of 20.1 g. 1,1-dimethylindan in CCl₄ and the residual product in dioxane treated with 15 g. anhyd. NMe₂ gave 15 g. 3-dimethylamino-1,1-dimethylindan-HCl, needles, m. 192-3.degree.; the methiodide sepd. as colorless needles, m. 182-3.degree. (from EtOAc-alc.). Br (18.1 g.) similarly added to 18.1 g. 1,1,2-trimethylindan and the product allowed to react 12 hrs. at room temp. with 12.5 g. NMe₂ in dioxane gave 0.5 g. of a salt, probably 2-bromo-3-dimethylamino-1,1,2-trimethylindan-HCl as rhombs, m. 195-6.degree. (from dioxane). The ethereal soln. yielded a colorless oil, b12 93.degree. which was 1,1,2-trimethylindene; hydrogenation gave the starting material, b12 89.degree., n_D 1.5158. Similarly 9.6 g. 1,1,3-trimethylindan with Br and NMe₂ gave 0.5 g. product which was probably 2-bromo-1-dimethylamino-1,1,3-trimethylindan-HCl, m. 198.degree.; picrate, rhombs, m. 157-8.degree.. A no. of these compds. were tested for their pharmacol. properties.

IT 78324-67-1, 1-Acenaphthenol, 2,2-diphenyl-
(prepn. of)

RN 78324-67-1 CAPLUS

CN 1-Acenaphthylenol, 1,2-dihydro-2,2-diphenyl- (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 07:53:39 ON 03 MAR 2003)

FILE 'REGISTRY' ENTERED AT 07:53:44 ON 03 MAR 2003

L1 STRUCTURE UPLOADED
L2 50 S L1 SSS SAM
L3 4161 S L1 SSS FUL
L4 STRUCTURE UPLOADED
L5 0 S L4 SSS SAM SUB=L3

FILE 'STNGUIDE' ENTERED AT 07:57:16 ON 03 MAR 2003

FILE 'REGISTRY' ENTERED AT 08:17:03 ON 03 MAR 2003

L6 STRUCTURE UPLOADED
L7 1 S L6 SSS SAM SUB=L3
L8 2 S L4 SSS FUL SUB=L3
L9 STRUCTURE UPLOADED
L10 0 S L9 SSS SAM SUB=L3
L11 3 S L9 SSS FUL SUB=L3
L12 STRUCTURE UPLOADED
L13 2 S L12 SSS SAM SUB=L3
L14 99 S L12 SSS FUL SUB=L3
L15 STRUCTURE UPLOADED
L16 0 S L15 SSS SAM SUB=L3
L17 1 S L15 SSS FUL SUB=L3
L18 105 S L8 OR L11 OR L14 OR L17
L19 4056 S L3 NOT L18

FILE 'CAPLUS' ENTERED AT 08:27:40 ON 03 MAR 2003

L20 2320 S L19
L21 170156 S PROLIFER?
L22 3 S L20 AND L21

FILE 'REGISTRY' ENTERED AT 08:33:33 ON 03 MAR 2003

L23 STRUCTURE UPLOADED
L24 50 S L23 SSS SAM SUB=L3
L25 3851 S L23 SSS FUL SUB=L3
L26 207 S L19 NOT L25

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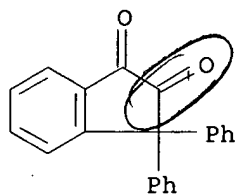
FILE 'CAOLD' ENTERED AT 08:38:06 ON 03 MAR 2003

=> s l26

L28 24 L26

=> d l28 1-24 bib,hitstr

L28 ANSWER 1 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA65:13633e CAOLD
TI reactions of diaryldiazoalkanes - (VI) diphenyldiazomethane and benzoyl cyanide
AU Bettinetti, Gian F.; Donetti, A.
TI synthesis of glycidyl ethers of acetylenic alcs.
AU Matsoyan, S. G.; Akopyan, L. A.
IT 7312-39-2
RN 7312-39-2 CAOLD
CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



L28 ANSWER 2 OF 24 CAOLD COPYRIGHT 2003 ACS

AN CA63:13043c CAOLD

TI stereochemistry of addns. to triple bonds

AU Winterfeldt, Ekkehard; Preuss, H.

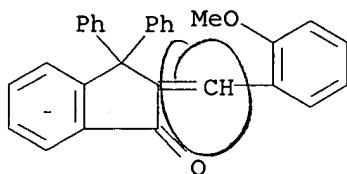
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96367-15-6 96378-71-1 96378-72-2

96809-21-1 96809-24-4

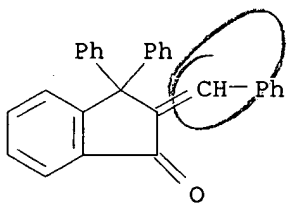
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CN 1-Indanone, 2-(o-methoxybenzylidene)-3,3-diphenyl-, trans- (8CI) (CA INDEX NAME)



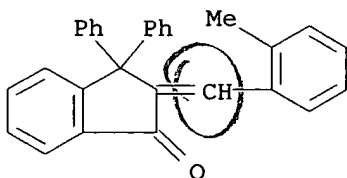
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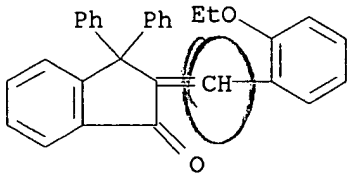
RN 96271-63-5 CAOLD

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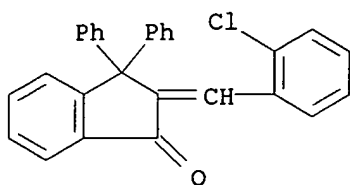
RN 96367-15-6 CAOLD

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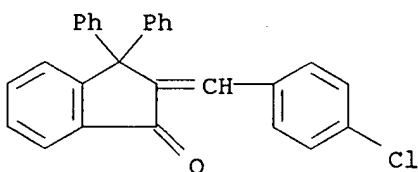
RN 96378-71-1 CAOLD

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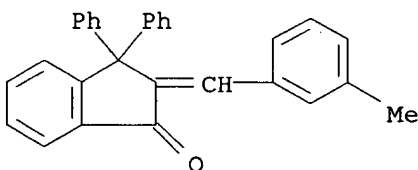
RN 96378-72-2 CAOLD

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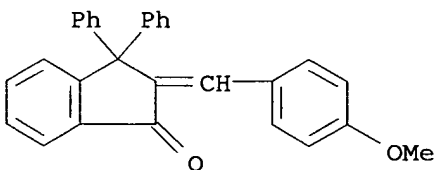
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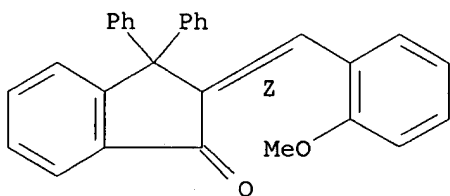
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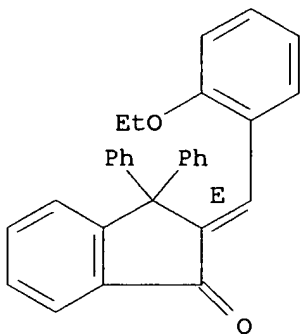
L28 ANSWER 3 OF 24 CAOLD COPYRIGHT 2003 ACS
 AN CA63:13042g CAOLD
 TI proton magnetic resonance spectra and stereochemistry of some
 5,6-disubstituted bicyclo[2.2.2]oct-2-enes
 AU Roll, David B.; Huitric, A. C.
 IT 4011-13-6 4011-14-7 4011-15-8
 4051-42-7 4051-43-8 4051-44-9
 4051-45-0 4051-46-1 4051-47-2
 4051-48-3 4118-11-0 4118-12-1
 4118-13-2 4118-14-3 4120-55-2
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 NAME)

Double bond geometry as shown.



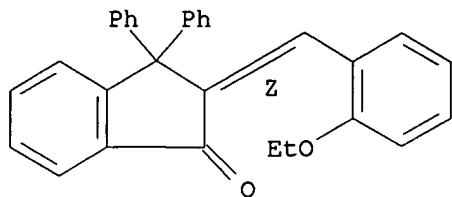
RN 4011-14-7 CAOLD
 CN 1-Indanone, 2-(o-ethoxybenzylidene)-3,3-diphenyl-, (E)- (8CI) (CA INDEX
 NAME)

Double bond geometry as shown.



RN 4011-15-8 CAOLD
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 NAME)

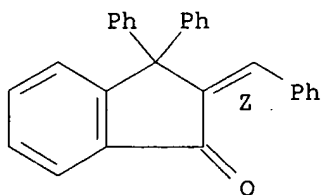
Double bond geometry as shown.



RN 4051-42-7 CAOLD

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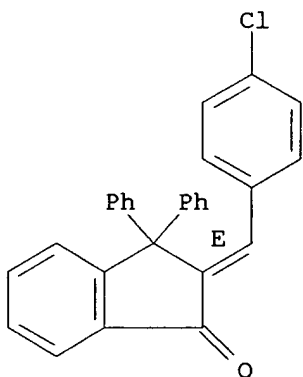
Double bond geometry as shown.



RN 4051-43-8 CAOLD

CN 1H-Inden-1-one, 2-[(4-chlorophenyl)methylene]-2,3-dihydro-3,3-diphenyl-, (E)- (9CI) (CA INDEX NAME)

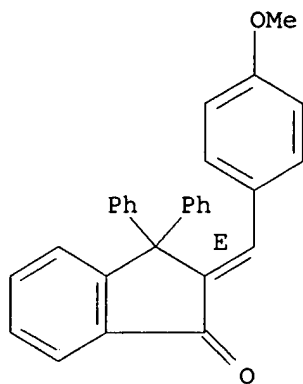
Double bond geometry as shown.



RN 4051-44-9 CAOLD

CN 1-Indanone, 2-(p-methoxybenzylidene)-3,3-diphenyl-, (E)- (8CI) (CA INDEX NAME)

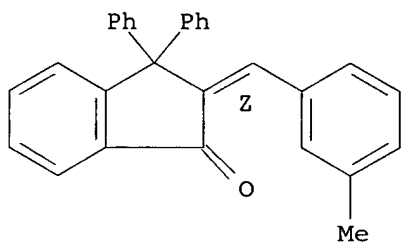
Double bond geometry as shown.



RN 4051-45-0 CAOLD

CN 1-Indanone, 2-(m-methoxybenzylidene)-3,3-diphenyl-, (Z)- (8CI) (CA INDEX NAME)

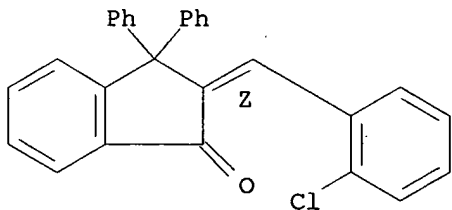
Double bond geometry as shown.



RN 4051-46-1 CAOLD

CN 1-Indanone, 2-(o-chlorobenzylidene)-3,3-diphenyl-, (Z)- (8CI) (CA INDEX NAME)

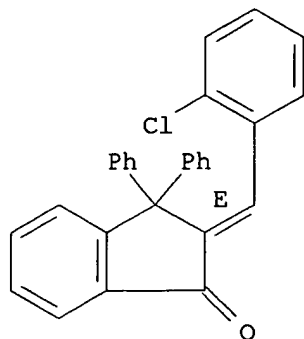
Double bond geometry as shown.



RN 4051-47-2 CAOLD

CN 1-Indanone, 2-(o-chlorobenzylidene)-3,3-diphenyl-, (E)- (8CI) (CA INDEX NAME)

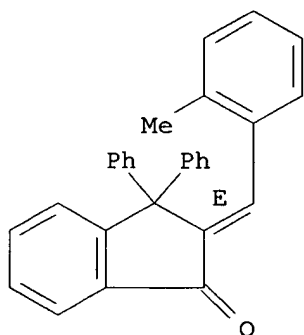
Double bond geometry as shown.



RN 4051-48-3 CAOLD

CN 1-Indanone, 2-(o-methylbenzylidene)-3,3-diphenyl-, (E)- (8CI) (CA INDEX NAME)

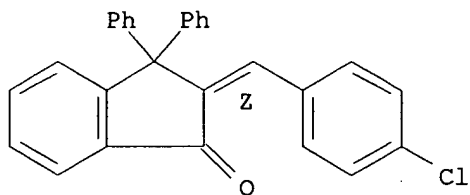
Double bond geometry as shown.



RN 4118-11-0 CAOLD

CN 1-Indanone, 2-(p-chlorobenzylidene)-3,3-diphenyl-, (Z)- (8CI) (CA INDEX NAME)

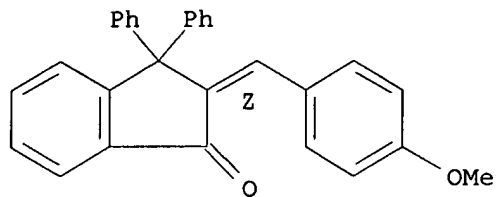
Double bond geometry as shown.



RN 4118-12-1 CAOLD

CN 1-Indanone, 2-(p-methoxybenzylidene)-3,3-diphenyl-, (Z)- (8CI) (CA INDEX NAME)

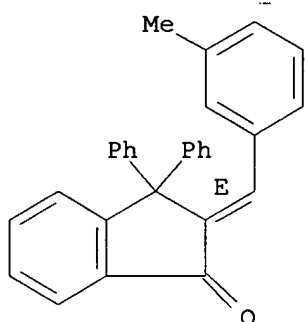
Double bond geometry as shown.



RN 4118-13-2 CAOLD

CN 1-Indanone, 2-(m-methylbenzylidene)-3,3-diphenyl-, (E)- (8CI) (CA INDEX NAME)

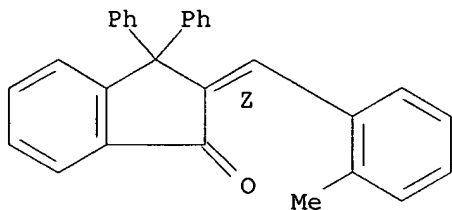
Double bond geometry as shown.



RN 4118-14-3 CAOLD

CN 1-Indanone, 2-(o-methylbenzylidene)-3,3-diphenyl-, (Z)- (8CI) (CA INDEX NAME)

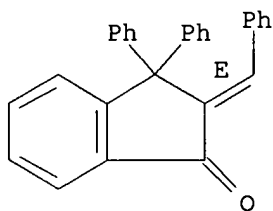
Double bond geometry as shown.



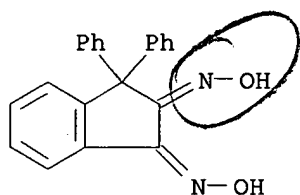
RN 4120-55-2 CAOLD

CN 1-Indanone, 2-benzylidene-3,3-diphenyl-, (E)- (8CI) (CA INDEX NAME)

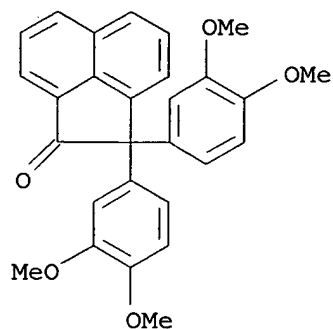
Double bond geometry as shown.



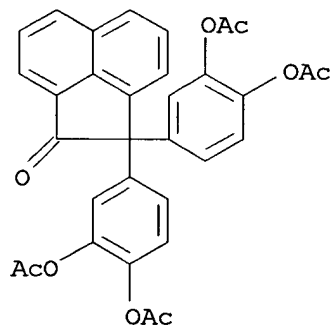
L28 ANSWER 4 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA63:4939a CAOLD
TI 3,3-diphenylindan-1,2-dione dioxime as a highly sensitive precipitant for Pd
AU Bark, Lionel S.; Brandon, D. G.
TI detn. of P in high-Cr steels
AU Spektor, K. A.
IT 1738-08-5
RN 1738-08-5 CAOLD
CN 1,2-Indandione, 3,3-diphenyl-, dioxime (7CI, 8CI) (CA INDEX NAME)



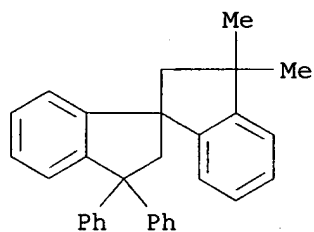
L28 ANSWER 5 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA63:4224e CAOLD
TI condensation of diketones with aromatic compds. - (III) reactions of
.alpha.-diketones
AU Davidson, Irene M.; Musgrave, O. C.; Manson, D. L.
IT 3452-32-2 3452-34-4
RN 3452-32-2 CAOLD
CN 1-Acenaphthenone, 2,2-bis(3,4-dimethoxyphenyl)- (7CI, 8CI) (CA INDEX
NAME)



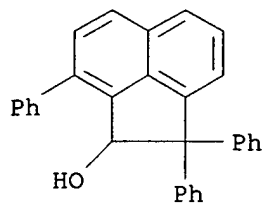
RN 3452-34-4 CAOLD
CN 1-Acenaphthenone, 2,2-bis(3,4-dihydroxyphenyl)-, tetraacetate (7CI, 8CI)
(CA INDEX NAME)



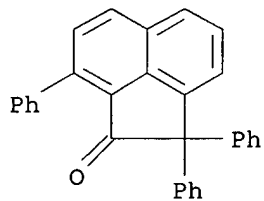
L28 ANSWER 6 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA60:4066h CAOLD
TI 1,1'-spirobiindans
AU Barclay, L. Ross C.; Chapman, R. A.
TI stereochemistry of hydrindan systems
AU Serebryakov, E. P.; Kucherov, V. F.
IT 105069-46-3
RN 105069-46-3 CAOLD
CN 1,1'-Spirobi[1H-indene], 2,2',3,3'-tetrahydro-3,3-dimethyl-3',3'-diphenyl-
(9CI) (CA INDEX NAME)



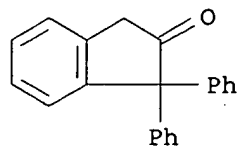
L28 ANSWER 7 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA59:15225g CAOLD
TI 2,4,7-derivs. of fluorene
AU Schidlo, Wolfram; Sieglitz, A.
IT 96375-00-7 96376-75-9
RN 96375-00-7 CAOLD
CN 1-Acenaphthenol, 2,2,8-triphenyl- (7CI) (CA INDEX NAME)



RN 96376-75-9 CAOLD
CN 1-Acenaphthenone, 2,2,8-triphenyl- (6CI, 7CI) (CA INDEX NAME)

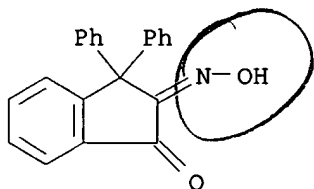


L28 ANSWER 8 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA59:13895b CAOLD
TI anomalous reactions of a sterically hindered diazo ketone
AU Schubert, Hermann; Bleichert, J.
IT **54193-73-6**
RN 54193-73-6 CAOLD
CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)

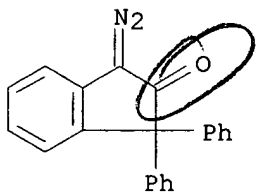


Same as #25

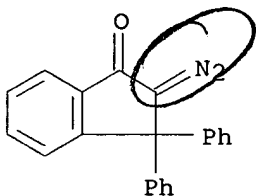
L28 ANSWER 9 OF 24 CAOLD COPYRIGHT 2003 ACS
 AN CA57:11117i CAOLD
 TI condensed cyclobutane aromatic compds. - (XX) photolysis of isomeric
 3,3-diphenyl diazoindanones
 AU Cava, Michael P.; McConnell, D. G.; Muth, K.; Mitchell, M. J.
 IT 24283-27-0 54964-80-6 97433-64-2
 RN 24283-27-0 CAOLD
 CN 1,2-Indandione, 3,3-diphenyl-, 2-oxime (7CI, 8CI) (CA INDEX NAME)



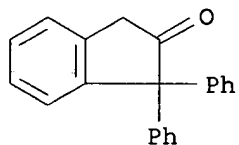
RN 54964-80-6 CAOLD
 CN 2H-Inden-2-one, 3-diazo-1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



RN 97433-64-2 CAOLD
 CN 1-Indanone, 2-diazo-3,3-diphenyl- (6CI, 7CI) (CA INDEX NAME)

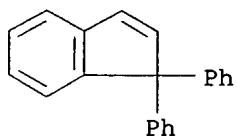


L28 ANSWER 10 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA57:3350c CAOLD
TI abnormal acids from the Arndt-Eistert synthesis
AU Wilds, Alfred L.; Van den Berghe, J.; Winestock, C. H.; Von Trebra, R. L.;
Woolsey, N. F.
IT 54193-73-6
RN 54193-73-6 CAOLD
CN 2H-Inden-2-one, 1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



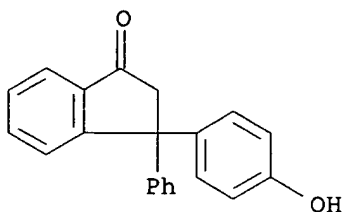
Same as #23

L28 ANSWER 11 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA55:22084a CAOLD
TI H transfer - (XVI) dihydrides of nitrogenous heterocycles as H donors,
(XVII) homogeneous H transfer reactions from dihydrides of nitrogenous
heterocycles to misc. acceptors, (XVIII) homogeneous H transfer between
nitrogenous heterocycles
AU Braude, E. A.; Hannah, J.; Linstead, R. P.
IT **18636-52-7**
RN 18636-52-7 CAOLD
CN 1H-Indene, 1,1-diphenyl- (9CI) (CA INDEX NAME)



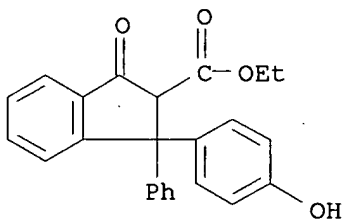
Same as #40

L28 ANSWER 12 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA55:9359g CAOLD
TI electrophilic properties of Et 3-phenylindone-2-carboxylate
AU Koelsch, Charles F.
IT 102242-25-1 102663-96-7 102705-84-0
RN 102242-25-1 CAOLD
CN 1-Indanone, 3-(p-hydroxyphenyl)-3-phenyl- (6CI) (CA INDEX NAME)

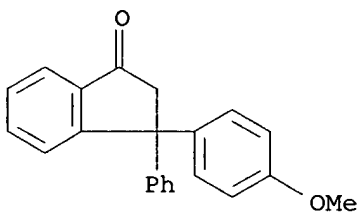


Same as #99

RN 102663-96-7 CAOLD
CN 2-Indancarboxylic acid, 1-(p-hydroxyphenyl)-3-oxo-1-phenyl-, ethyl ester
(6CI) (CA INDEX NAME)



RN 102705-84-0 CAOLD
CN 1-Indanone, 3-(p-methoxyphenyl)-3-phenyl- (6CI) (CA INDEX NAME)



L28 ANSWER 13 OF 24 CAOLD COPYRIGHT 2003 ACS

AN CA55:4479b CAOLD

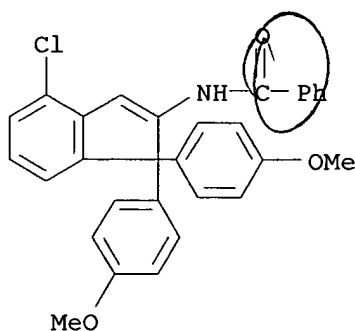
TI action of Grignard reagents on heterocyclic compds. - (III) of arylmagnesium halides on 2-phenyl-4-benzylidene-2-imidazolin-5-one

AU Awad, William I.; Allah, A. E. A. G.

IT 103164-62-1 103278-05-3 115292-07-4
115485-55-7

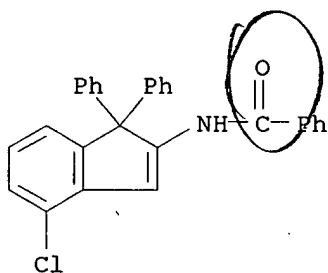
RN 103164-62-1 CAOLD

CN Benzamide, N-[4-chloro-1,1-bis(p-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



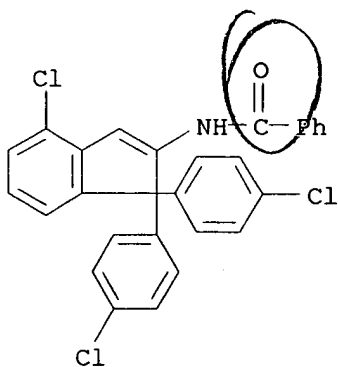
RN 103278-05-3 CAOLD

CN Benzamide, N-(4-chloro-1,1-diphenylinden-2-yl)- (6CI) (CA INDEX NAME)



RN 115292-07-4 CAOLD

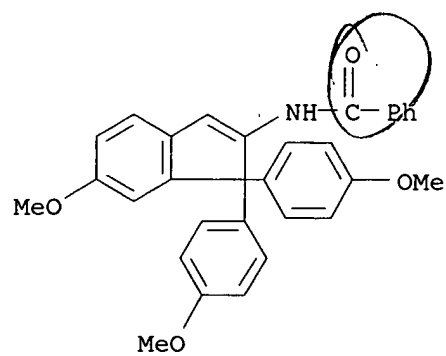
CN Benzamide, N-[4-chloro-1,1-bis(p-chlorophenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



RN 115485-55-7 CAOLD

10/043,640

CN Benzamide, N-[6-methoxy-1,1-bis(p-methoxyphenyl)inden-2-yl]- (6CI) (CA
INDEX NAME)



L28 ANSWER 14 OF 24 CAOLD COPYRIGHT 2003 ACS

AN CA55:4477h CAOLD

TI action of Grignard reagents on heterocyclic compds. - (I) on unsatd. azlactones, (II) on some substituted unsatd. azlactones

AU Awad, William I.; Hafez, M. S.

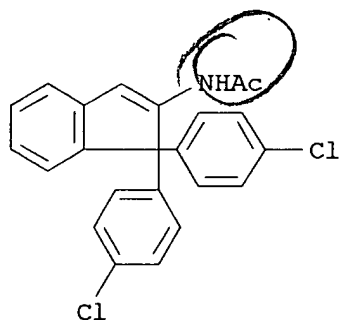
IT 102545-57-3 102594-09-2 103165-82-8

103277-85-6 113863-22-2 115000-09-4

115099-38-2 116378-26-8 116378-42-8

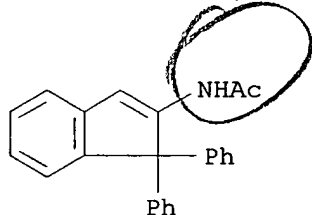
RN 102545-57-3 CAOLD

CN Acetamide, N-[1,1-bis(p-chlorophenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



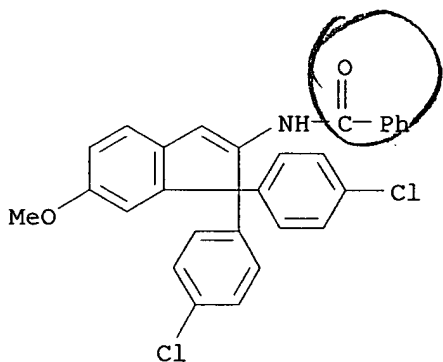
RN 102594-09-2 CAOLD

CN Acetamide, N-1,1-diphenylinden-2-yl- (6CI) (CA INDEX NAME)



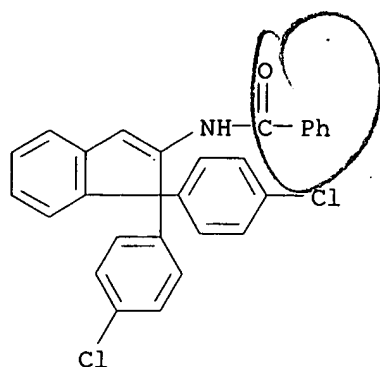
RN 103165-82-8 CAOLD

CN Benzamide, N-[1,1-bis(p-chlorophenyl)-6-methoxyinden-2-yl]- (6CI) (CA INDEX NAME)



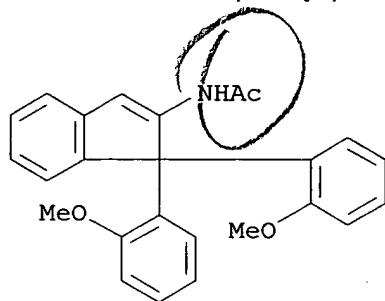
RN 103277-85-6 CAOLD

CN Benzamide, N-[1,1-bis(p-chlorophenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



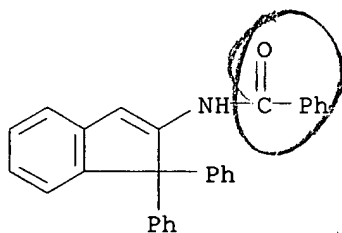
RN 113863-22-2 CAOLD

CN Acetamide, N-[1,1-bis(o-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



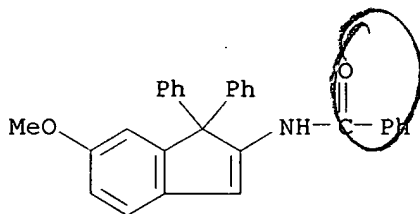
RN 115000-09-4 CAOLD

CN Benzamide, N-1,1-diphenylinden-2-yl- (6CI) (CA INDEX NAME)



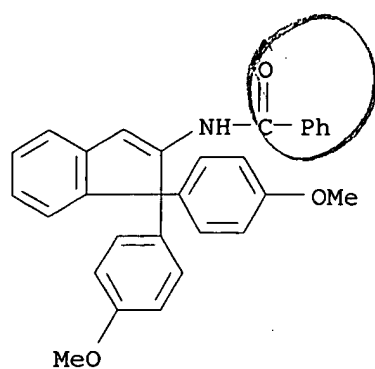
RN 115099-38-2 CAOLD

CN Benzamide, N-(6-methoxy-1,1-diphenylinden-2-yl)- (6CI) (CA INDEX NAME)



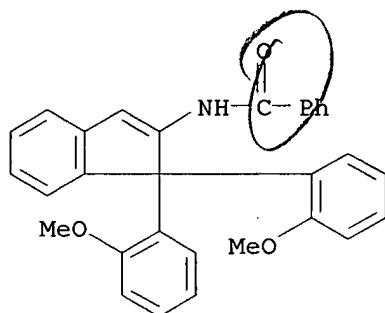
RN 116378-26-8 CAOLD

CN Benzamide, N-[1,1-bis(p-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)

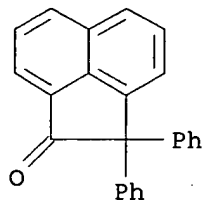


RN 116378-42-8 CAOLD

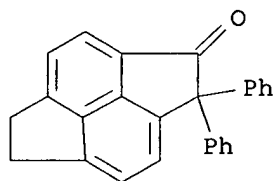
CN Benzamide, N-[1,1-bis(o-methoxyphenyl)inden-2-yl]- (6CI) (CA INDEX NAME)



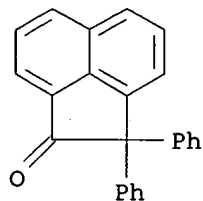
L28 ANSWER 15 OF 24 CAOLD COPYRIGHT 2003 ACS
 AN CA54:19611f CAOLD
 TI acenaphthene chemistry - (VI) prepn. and reactions of some pyracene glycols
 AU Richter, Henry J.; Feist, W. C.
 IT 85925-12-8 122447-91-0
 RN 85925-12-8 CAOLD
 CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



RN 122447-91-0 CAOLD
 CN Cyclopent[fg]acenaphthylen-1(2H)-one, 5,6-dihydro-2,2-diphenyl- (6CI) (CA INDEX NAME)



L28 ANSWER 16 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA54:10947g CAOLD
TI reductive cleavage of ketone by LiAlH_4 in pyridine soln.
AU Lansbury, Peter T.
IT **85925-12-8**
RN 85925-12-8 CAOLD
CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



L28 ANSWER 17 OF 24 CAOLD COPYRIGHT 2003 ACS

AN CA53:16126c CAOLD

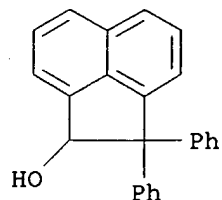
TI peri-substituted naphthalenes - (I) rearrangement reactions of substituted naphthopyrans

AU Letsinger, Robert L.; Lansbury, P. T.

IT 78324-67-1 85925-12-8 102755-53-3

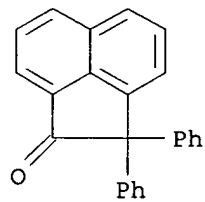
RN 78324-67-1 CAOLD

CN 1-Acenaphthylenol, 1,2-dihydro-2,2-diphenyl- (9CI) (CA INDEX NAME)



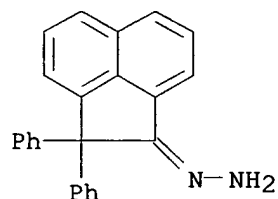
RN 85925-12-8 CAOLD

CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)

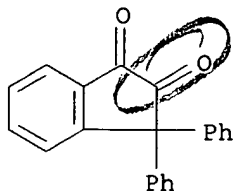


RN 102755-53-3 CAOLD

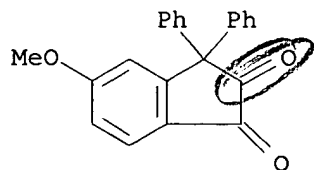
CN 1-Acenaphthenone, 2,2-diphenyl-, hydrazone (6CI) (CA INDEX NAME)



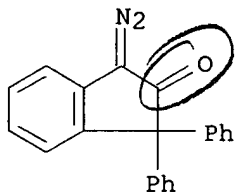
L28 ANSWER 18 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA53:10149h CAOLD
TI behavior of tetraaryllallenes in the diene synthesis with maleic anhydride
AU Alder, Kurt; Doelling, U.; Schroeder, W.; Spanke, W.
IT 7312-39-2 102468-61-1
RN 7312-39-2 CAOLD
CN 1H-Indene-1,2(3H)-dione, 3,3-diphenyl- (9CI) (CA INDEX NAME)



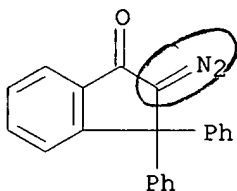
RN 102468-61-1 CAOLD
CN 1,2-Indandione, 5-methoxy-3,3-diphenyl- (6CI) (CA INDEX NAME)



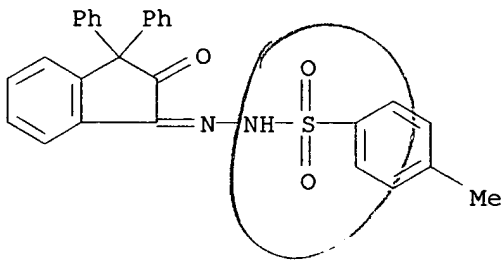
L28 ANSWER 19 OF 24 CAOLD COPYRIGHT 2003 ACS
 AN CA52:15482i CAOLD
 TI condensed cyclobutane aromatic compds. - (V) synthesis of
 .alpha.-diazoindanones-ring contraction in the indane series
 AU Cava, Michael P.; Little, R. L.; Napier, D. R.
 IT 54964-80-6 97433-64-2 103162-24-9
 RN 54964-80-6 CAOLD
 CN 2H-Inden-2-one, 3-diazo-1,3-dihydro-1,1-diphenyl- (9CI) (CA INDEX NAME)



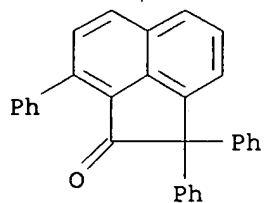
RN 97433-64-2 CAOLD
 CN 1-Indanone, 2-diazo-3,3-diphenyl- (6CI, 7CI) (CA INDEX NAME)



RN 103162-24-9 CAOLD
 CN p-Toluenesulfonic acid, (2-oxo-3,3-diphenyl-1-indanylidene)hydrazide (6CI)
 (CA INDEX NAME)

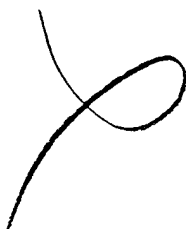
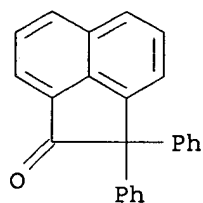


L28 ANSWER 20 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA51:12049b CAOLD
TI stereoisomeric N-ethylated hexahydroanthranilic acids
AU Huenig, Siegfried; Kahanek, H.
IT 96376-75-9
RN 96376-75-9 CAOLD
CN 1-Acenaphthenone, 2,2,8-triphenyl- (6CI, 7CI) (CA INDEX NAME)

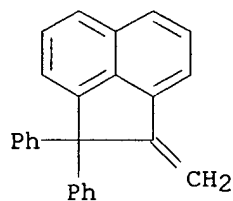


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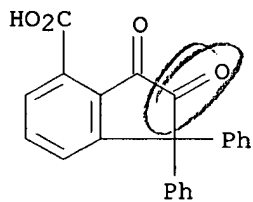
L28 ANSWER 21 OF 24 CAOLD COPYRIGHT 2003 ACS
 AN CA51:12048c CAOLD
 TI addn. of tert-butylmagnesium chloride to 2,2-diphenyl-1-acenaphthenone
 AU Fuson, Reynold C.; Griffin, G. W.
 IT 85925-12-8 102884-60-6 112441-66-4
 114696-90-1 116027-65-7 116027-66-8
 116029-03-9
 RN 85925-12-8 CAOLD
 CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)



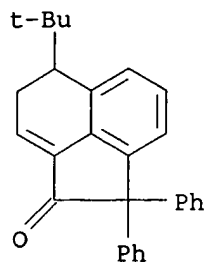
RN 102884-60-6 CAOLD
 CN Acenaphthene, 2-methylene-1,1-diphenyl- (6CI) (CA INDEX NAME)



RN 112441-66-4 CAOLD
 CN 4-Indancarboxylic acid, 2,3-dioxo-1,1-diphenyl- (6CI) (CA INDEX NAME)

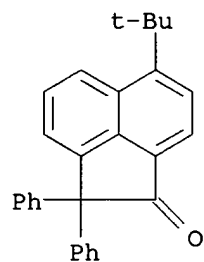


RN 114696-90-1 CAOLD
 CN 1-Acenaphthenone, 6-tert-butyl-6,7-dihydro-2,2-diphenyl- (6CI) (CA INDEX NAME)



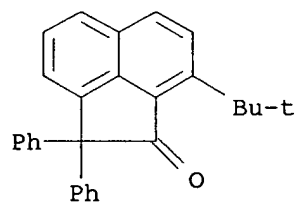
RN 116027-65-7 CAOLD

CN 1-Acenaphthenone, 6-tert-butyl-2,2-diphenyl- (6CI) (CA INDEX NAME)



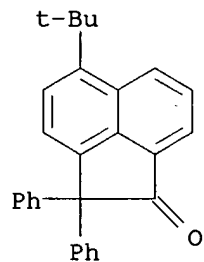
RN 116027-66-8 CAOLD

CN 1-Acenaphthenone, 8-tert-butyl-2,2-diphenyl- (6CI) (CA INDEX NAME)

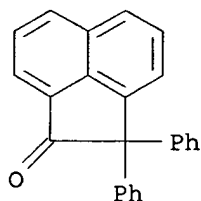


RN 116029-03-9 CAOLD

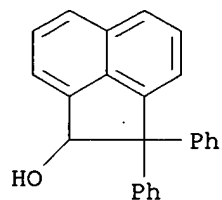
CN 1-Acenaphthenone, 5-tert-butyl-2,2-diphenyl- (6CI) (CA INDEX NAME)



L28 ANSWER 22 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA51:11308d CAOLD
TI addn. of tert-butylmagnesium chloride to 2,2-diphenyl-1-acenaphthenone
AU Griffin, Gary W.
TI synthesis of 9-methyl-3,4-benzopyrene and 8,9-dimethyl-3,4-benzopyrene
AU Adelfang, Jules L.; Daub, G. H.
IT 85925-12-8
RN 85925-12-8 CAOLD
CN 1(2H)-Acenaphthylenone, 2,2-diphenyl- (9CI) (CA INDEX NAME)

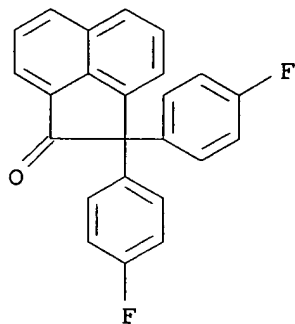


L28 ANSWER 23 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA51:2689i CAOLD
TI compds. of potential pharmacol. interest - (IV) aryl and alkyl derivs. of
1-aminoindan
AU Barltrop, J. A.; Acheson, R. M.; Philpott, P. G.; MacPhee, K. E.; Hunt, J.
S.
IT 78324-67-1
RN 78324-67-1 CAOLD
CN 1-Acenaphthylenol, 1,2-dihydro-2,2-diphenyl- (9CI) (CA INDEX NAME)



10/043,640

L28 ANSWER 24 OF 24 CAOLD COPYRIGHT 2003 ACS
AN CA30:5974i CAOLD
TI Pinacol-pinacolone rearrangement - (VIII) rearrangement of
7,8-diarylacenaphthenediols
AU Bachmann, W. E.; Chu, E. J.-H.
IT 426-82-4
RN 426-82-4 CAOLD
CN 1(2H)-Acenaphthylenone, 2,2-bis(4-fluorophenyl)- (9CI) (CA INDEX NAME)



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